

# CP Papers on Scheduling

Helmut Simonis and Cemalettin Öztürk

March 18, 2024

## 1 Introduction

This document shows the result of a survey on "Constraint Programming and Scheduling", which tries to find and classify all publications on the combination of these two concepts. It is based on a manually collected bibfile containing reference to relevant papers and articles, and on an automatic and manual analysis of local copies of the cited papers. For copyright reasons, we are obviously not able to distribute the collected copies, but we provide links to the original sources of the files.

We identify the papers by a key which is the last name of the first author, the first character of the last names of all other authors, and a two digit year code for the date of publication. If multiple works would define the same key, we differentiate by adding a suffix "a", "b", etc, to the second and subsequent works found.

Most of the content of this document is generated by a Java program that parses the bib files, adds any manually extracted information, and which then extracts concept occurrences from the local copies of the works. It then produces tables and other LaTeX artifacts that are included in a manually defined top-level document.

To add new works, first add bibtex entries for each work in the main `overview/bib.bib` file, then add local copies of the pdf of the work to the `overview/works/` directory, using the key of the bibtex entry as the file name (plus extension `.pdf`), and then run the main Java program `org.insightcentre.pthg24.JfxApp` to consolidate the information and extract the relevant concepts. Finally, run `pdflatex` on the `overview/scheduling.tex` file to produce this pdf document. Manually extracted information for the files can be added in the `imports/manual.csv` file. New concepts can be added in the file `imports/concepts.json`, new concept types need to be directly defined in the Java code.

We start the document by providing a table of all defined keys in the bib file in alphabetical order. This table can be helpful to see if a candidate paper is already in the survey, it suffices to see if the key is already present, and matches the authors, title and origin of the candidate paper. In the table link given by the key points to the local copy of the file, while the citation number links to the bibliography entry. That entry typically also contains a link to the original source of the paper.

This document heavily depends on the use of hyper links in the document, it has been tested with Acrobat Reader, other pdf reader may not use links in the same way.

Table 1: Key Overview (Total: 560)

| 1                        | 2                    | 3                         | 4                      | 5                     | 6                     |
|--------------------------|----------------------|---------------------------|------------------------|-----------------------|-----------------------|
| AalianPG23 [1]           | AbohashimaEG21 [2]   | AbreuAPNM21 [141]         | AbreuN22 [142]         | AbreuNP23 [143]       | AbreuPNF23 [3]        |
| AbrilSB05 [4]            | Acuna-AgostMFG09 [5] | AdamsBZ88 [6]             | AggounB93 [7]          | AkkerDH07 [503]       | AkramNHRSA23 [9]      |
| AlesioNBG14 [154]        | AlfieriGPS23 [11]    | AlizdehS20 [12]           | AngelsmarkJ00 [13]     | AntuoriHHEN20 [14]    | AntuoriHHEN21 [15]    |
| ApplegateC91 [16]        | ArbaouiY18 [17]      | ArmstrongGOS21 [18]       | ArmstrongGOS22 [19]    | AronssonBK09 [20]     | ArtiguesBF04 [21]     |
| ArtiguesHQT21 [22]       | ArtiguesR00 [23]     | ArtiouchineB05 [24]       | Astrand0F21 [26]       | Astrand21 [25]        | AstrandJZ18 [27]      |
| AstrandJZ20 [28]         | BadicaBI20 [29]      | BadicaBIL19 [30]          | BajestaniB11 [31]      | BajestaniB13 [32]     | BajestaniB15 [33]     |
| BandaSC11 [144]          | Baptiste09 [34]      | BaptisteB18 [35]          | BaptisteLPN06 [36]     | BaptisteLV92 [40]     | BaptisteP00 [38]      |
| BaptisteP97 [37]         | BaptistePN01 [39]    | BarlattCG08 [41]          | Bartak02 [43]          | Bartak02a [42]        | Bartak14 [44]         |
| BartakCS10 [45]          | BartakS11 [46]       | BartakSR10 [47]           | BartakV15 [48]         | BartoliniBBLM14 [49]  | BarzegaranZP20 [50]   |
| Beck06 [52]              | Beck07 [53]          | Beck99 [51]               | BeckDF97 [54]          | BeckF00 [57]          | BeckF98 [56]          |
| BeckFW11 [55]            | BeckPS03 [58]        | BeckR03 [59]              | BeckW04 [60]           | BeckW05 [61]          | BeckW07 [62]          |
| Bedhief21 [63]           | BegB13 [64]          | BehrensLM19 [65]          | BeldiceanuC02 [68]     | BeldiceanuC94 [67]    | BeldiceanuCDP11 [69]  |
| BeldiceanuCP08 [70]      | BeldiceanuP07 [71]   | BelhadjiI98 [72]          | BenderWS21 [73]        | Benders62 [74]        | BenediktMH20 [75]     |
| BenediktSMVH18 [76]      | BeniniBGM06 [77]     | BeniniLMR11 [78]          | BensanaLV99 [79]       | BertholdHLMS10 [80]   | BessiereHMQW14 [81]   |
| BidotVLB09 [82]          | BillautHL12 [83]     | Bit-Monnot23 [84]         | BlazewiczEP19 [85]     | BlazewiczLK83 [86]    | BlomBPS14 [87]        |
| BlomPS16 [88]            | BocewiczBB09 [89]    | BofillCSV17 [90]          | BofillEGPSV14 [91]     | BofillGSV15 [92]      | BogaerdtW19 [504]     |
| Bonfietti16 [93]         | BonfiettiLBM11 [94]  | BonfiettiLBM12 [95]       | BonfiettiLBM14 [96]    | BonfiettiLM13 [97]    | BonfiettiLM14 [98]    |
| BonfiettiM12 [99]        | BonfiettiZLM16 [100] | BoothNB16 [101]           | BorghesiBLMB18 [102]   | BoucherBVBL97 [103]   | BoudreaultSLQ22 [104] |
| BourreauGGLT22 [105]     | BreitingerL95 [106]  | BridiBLMB16 [107]         | BridiLBBM16 [108]      | BruckerDMNP99 [109]   | BrusoniCLMMT96 [110]  |
| BurtLPS15 [111]          | Caballero23 [112]    | CampeauG22 [113]          | CappartS17 [114]       | CappartTSR18 [115]    | CarchraeBF05 [116]    |
| CarlierP89 [117]         | CarlierP90 [118]     | CarlierP94 [119]          | Caseau97 [120]         | CauwelaertDMS16 [121] | CauwelaertDS20 [123]  |
| CauwelaertLS18 [122]     | CestaOS98 [124]      | ChapadosJR11 [125]        | ChuGNSW13 [126]        | ChuX05 [127]          | CireCH13 [128]        |
| ClercqPBJ11 [129]        | CobanH10 [130]       | CohenHB17 [131]           | ColT19 [133]           | ColT22 [134]          | Colombani96 [135]     |
| CzerniachowskaWZ23 [136] | DannaP03 [137]       | Darby-DowmanLMZ97 [138]   | Davenport10 [139]      | DavenportKRSH07 [140] | DechterMP91 [145]     |
| Dejemeppe16 [146]        | DejemeppeCS15 [147]  | DejemeppeD14 [148]        | Demassey03 [149]       | DemirovicS18 [150]    | Derrien15 [151]       |
| DerrienP14 [152]         | DerrienPZ14 [153]    | DilkinaDH05 [155]         | DincbasSH90 [156]      | DoomsH08 [157]        | DoulabiRP14 [158]     |
| DoulabiRP16 [159]        | EdisO11 [160]        | EfthymiouY23 [161]        | ElkhyariGJ02 [162]     | ElkhyariGJ02a [163]   | ErtlK91 [164]         |
| EscobetPQPRA19 [165]     | EvenSH15 [166]       | EvenSH15a [167]           | FahimiOQ18 [168]       | FalaschiGMP97 [169]   | FallahiAC20 [170]     |
| FanXG21 [171]            | FarsiTM22 [172]      | Fatemi-AnarakiMFN22 [173] | FetgoD22 [174]         | FocacciLN00 [175]     | FontaineMH16 [176]    |
| FortinZDF05 [177]        | FrankK05 [178]       | FriedrichFMRSS14 [179]    | FrimodigS19 [180]      | FrohnerTR19 [181]     | FrostD98 [182]        |
| GalleguillosKSB19 [183]  | GarganiR07 [184]     | GarridoAO09 [185]         | GarridoOS08 [186]      | GayHLS15 [187]        | GayHS15 [188]         |
| GayHS15a [189]           | GaySS14 [190]        | GedikKEK18 [191]          | GeibingerKKMMW21 [192] | GeibingerMM19 [194]   | GeibingerMM21 [195]   |
| GeitzGSSW22 [196]        | GelainPRVW17 [197]   | Geske05 [198]             | GilesH16 [199]         | GingrasQ16 [200]      | GodardLN05 [201]      |
| Godet21a [202]           | GodetLHS20 [203]     | GoelSHFS15 [204]          | GokgurHO18 [205]       | GoldwaserS17 [206]    | GoldwaserS18 [207]    |
| Goltz95 [208]            | GomesHS06 [209]      | GrimesH10 [210]           | GrimesH11 [211]        | GrimesH15 [212]       | GrimesHM09 [213]      |
| GrimesIOS14 [214]        | GroleazNS20 [216]    | GroleazNS20a [215]        | GruianK98 [217]        | GuSS13 [218]          | GuSW12 [219]          |

Table 1: Key Overview (Total: 560)

| 1                          | 2                     | 3                       | 4                      | 5                     | 6                       |
|----------------------------|-----------------------|-------------------------|------------------------|-----------------------|-------------------------|
| GurEA19 [560]              | GurPAE23 [220]        | HachemiGR11 [221]       | Ham18 [222]            | HamC16 [224]          | HamPK21 [223]           |
| HananKP21 [225]            | HarjunkoskiG02 [226]  | HartmannB10 [227]       | He0GLW18 [229]         | HebrardALLCMR22 [230] | HebrardHJMPV16 [231]    |
| HebrardTW05 [232]          | HechingH16 [233]      | HeckmanB11 [234]        | HeinzB12 [235]         | HeinzKB13 [236]       | HeinzNVH22 [240]        |
| HeinzS11 [238]             | HeinzSB13 [239]       | HeinzSSW12 [237]        | HeipckeCCS00 [242]     | HentenryckM04 [243]   | HentenryckM08 [244]     |
| HermenierDL11 [245]        | HillTV21 [246]        | HoYCLLC18 [247]         | HoeveGSL07 [506]       | Hooker00 [248]        | Hooker04 [249]          |
| Hooker05 [250]             | Hooker05a [251]       | Hooker06 [252]          | Hooker07 [253]         | Hooker17 [254]        | Hooker19 [255]          |
| HookerH18 [257]            | HookerO03 [256]       | HookerY02 [258]         | HoundjiSWD14 [259]     | HubnerGSV21 [260]     | IfrimOS12 [261]         |
| IsikYA23 [262]             | JainG01 [263]         | Jans09 [264]            | JelinekB16 [265]       | JourdanFRD94 [266]    | JungblutK22 [267]       |
| JuvinHHL23 [268]           | JuvinHL23 [269]       | KamarainenS02 [270]     | Kameugne15 [271]       | KameugneFGOQ18 [272]  | KameugneFND23 [273]     |
| KameugneFSN11 [274]        | KameugneFSN14 [275]   | KanetAG04 [276]         | KelarevaTK13 [277]     | KelbelH11 [278]       | KeriK07 [279]           |
| KhayatLR06 [280]           | KhemmoudjPB06 [281]   | KimCMLLP23 [282]        | KlankeBYE21 [283]      | KletzanderM17 [284]   | KoehlerBFFHPSSS21 [285] |
| KolischS97 [286]           | KorbaaYG00 [288]      | KorbaaYG99 [287]        | KoschB14 [289]         | KovacsB07 [290]       | KovacsB08 [291]         |
| KovacsB11 [292]            | KovacsEKV05 [293]     | KovacsK11 [294]         | KovacsTKSG21 [297]     | KovacsV04 [295]       | KovacsV06 [296]         |
| KreterSS15 [298]           | KreterSS17 [299]      | KreterSSZ18 [300]       | KrogtLPHJ07 [505]      | KuB16 [301]           | KuchcinskiW03 [302]     |
| KucukY19 [304]             | Kumar03 [303]         | Laborie03 [305]         | Laborie09 [306]        | Laborie18a [307]      | LaborieRSV18 [308]      |
| LacknerMMWW21 [309]        | LacknerMMWW23 [310]   | LahimerLH11 [311]       | LammaMM97 [312]        | LauLN08 [313]         | Layfield02 [314]        |
| Lemos21 [315]              | LetortBC12 [316]      | LetortCB13 [317]        | LetortCB15 [318]       | LiFJZLL22 [319]       | LiessM08 [320]          |
| LimBTBB15 [323]            | LimHTB16 [322]        | LimRX04 [321]           | Limtanyakul07 [324]    | LimtanyakulS12 [325]  | LipovetzkyBPS14 [326]   |
| LiuCGM17 [328]             | LiuJ06 [329]          | LiuLH19 [327]           | Lombardi10 [330]       | LombardiBM15 [331]    | LombardiBMB11 [332]     |
| LombardiM09 [333]          | LombardiM10 [335]     | LombardiM10a [334]      | LombardiM12 [337]      | LombardiM12a [336]    | LombardiM13 [338]       |
| LopesCSM10 [339]           | LopezAKYG00 [340]     | LorigeonBB02 [341]      | LouieVNB14 [342]       | Lunardi20 [344]       | LunardiBLRV20 [343]     |
| LuoB22 [346]               | LuoVLBM16 [345]       | Madi-WambaB16 [347]     | Madi-WambaLOBM17 [348] | MakMS10 [349]         | Malapert11 [350]        |
| MalapertN19 [351]          | Malik08 [352]         | MalikMB08 [353]         | MaraveliasG04 [354]    | MartinPY01 [355]      | Mason01 [356]           |
| Mehdizadeh-Somarin23 [357] | MejiaY20 [358]        | MelgarejoLS15 [8]       | Menana11 [359]         | MengZRZL20 [360]      | Mercier-AubinGQ20 [362] |
| MercierH08 [361]           | MoffittPP05 [363]     | MokhtarzadehTNF20 [364] | MonetteDD07 [365]      | MonetteDH09 [366]     | MontemanniD23 [368]     |
| MontemanniD23a [367]       | MossigeGSMC17 [369]   | MouraSCL08 [371]        | MouraSCL08a [370]      | MullerMKP22 [372]     | MurinR19 [373]          |
| MurphyMB15 [374]           | Muscettola02 [375]    | MusliuSS18 [376]        | NaderiBZ22 [377]       | NaderiRR23 [378]      | NattafAL15 [379]        |
| NattafAL17 [380]           | NattafM20 [381]       | NethercoteSBDT07 [382]  | NishikawaSTT18 [384]   | NishikawaSTT18a [385] | NishikawaSTT19 [386]    |
| NovaraNH16 [387]           | Novas19 [388]         | NovasH10 [389]          | NovasH12 [390]         | NovasH14 [391]        | NuijtenA94 [392]        |
| NuijtenP98 [393]           | OddiPCC03 [394]       | OhrimenkoSC09 [395]     | OuelletQ13 [396]       | OuelletQ18 [397]      | OuelletQ22 [398]        |
| OujanaAYB22 [399]          | OzturkTHO13 [400]     | PandeyS21a [401]        | PapaB98 [404]          | Pape94 [402]          | PapeB97 [403]           |
| ParkUJR19 [405]            | PembertonG98 [406]    | PerezGSL23 [407]        | PesantRR15 [409]       | PoderB08 [411]        | PoderBS04 [412]         |
| PohlAK22 [413]             | Polo-MejiaALB20 [414] | PopovicCGNC22 [415]     | PourDERB18 [416]       | PovedaAA23 [417]      | Pralet17 [418]          |
| PraletLJ15 [419]           | PrataAN23 [420]       | Puget95 [421]           | QinDCS20 [423]         | QinWLS21 [422]        | QuSN06 [424]            |
| QuirogaZH05 [425]          | RendlPHPR12 [426]     | RiahiNS018 [427]        | RodosekW98 [428]       | Rodriguez07 [430]     | RodriguezDG02 [429]     |
| RossiTHP07 [431]           | RuggieroBBMA09 [432]  | SacramentoSP20 [433]    | Sadykov04 [434]        | SadykovW06 [435]      | SakkoutW00 [436]        |

Table 1: Key Overview (Total: 560)

| 1                    | 2                    | 3                     | 4                     | 5                     | 6                    |
|----------------------|----------------------|-----------------------|-----------------------|-----------------------|----------------------|
| SchausHMCMD11 [437]  | SchildW00 [438]      | SchuttCSW12 [439]     | SchuttFS13 [441]      | SchuttFS13a [440]     | SchuttFSW09 [442]    |
| SchuttFSW11 [444]    | SchuttFSW13 [445]    | SchuttFSW15 [446]     | SchuttS16 [447]       | SchuttW10 [448]       | SchuttWS05 [449]     |
| SerraNM12 [450]      | ShaikhK23 [451]      | Shaw98 [452]          | ShiYXQ22 [453]        | ShinBBHO18 [454]      | Siala15 [455]        |
| Siala15a [456]       | SialaAH15 [457]      | SimoninAHL12 [458]    | SimoninAHL15 [459]    | Simonis07 [461]       | Simonis95 [460]      |
| SimonisC95 [462]     | SourdN00 [463]       | SquillaciPR23 [464]   | SubulanC22 [465]      | SunLYL10 [467]        | SureshMOK06 [468]    |
| SvancaraB22 [469]    | SzerediS16 [470]     | Taillard93 [471]      | TangB20 [472]         | TangLWSK18 [473]      | TardivoDFMP23 [474]  |
| TasselGS23 [475]     | Tay92 [477]          | Teppan22 [478]        | TerekhovDOB12 [479]   | TerekhovTDB14 [480]   | Tesch16 [481]        |
| Tesch18 [482]        | ThiruvadyBME09 [483] | ThiruvadyWGS14 [484]  | Thorsteinsson01 [485] | Timpe02 [486]         | Tom19 [487]          |
| TopalogluO11 [488]   | TorresL00 [489]      | TouatBT22 [490]       | Touraivane95 [491]    | TranAB16 [492]        | TranB12 [493]        |
| TranDRFWOVB16 [494]  | TranPZLDB18 [495]    | TranTDB13 [496]       | TranVNB17 [497]       | TranVNB17a [498]      | TranWDRFOVB16 [499]  |
| TrojetHL11 [500]     | Tsang03 [501]        | ValleMGT03 [502]      | VanczaM01 [507]       | VerfaillieL01 [508]   | Vilim02 [509]        |
| Vilim03 [510]        | Vilim04 [511]        | Vilim05 [512]         | Vilim09 [513]         | Vilim09a [514]        | Vilim11 [515]        |
| VilimBC04 [516]      | VilimBC05 [517]      | VilimLS15 [518]       | VillaverdeP04 [519]   | VlkHT21 [520]         | Wallace94 [521]      |
| Wallace96 [522]      | WallaceY20 [523]     | WangB20 [524]         | WangB23 [525]         | WangMD15 [526]        | WariZ19 [527]        |
| WatsonB08 [528]      | WessenCS20 [529]     | WikarekS19 [530]      | WinterMMW22 [531]     | Wolf03 [532]          | WolfS05 [533]        |
| WolinskiKG04 [534]   | WuBB05 [535]         | WuBB09 [536]          | YangSS19 [537]        | YounespourAKE19 [538] | YoungFS17 [539]      |
| YunusogluY22 [540]   | YuraszeckMC23 [541]  | YuraszeckMCCR23 [543] | YuraszeckMPV22 [542]  | ZarandiASC20 [545]    | ZarandiKS16 [544]    |
| ZeballosH05 [546]    | ZeballosQH10 [547]   | ZhangBB22 [549]       | ZhangJZL22 [548]      | ZhangLS12 [552]       | ZhangW18 [551]       |
| ZhangYW21 [550]      | Zhou96 [553]         | Zhou97 [554]          | ZhouGL15 [555]        | ZhuS02 [556]          | ZibranR11 [557]      |
| ZibranR11a [558]     | ZouZ20 [559]         | abs-0907-0939 [410]   | abs-1009-0347 [443]   | abs-1901-07914 [66]   | abs-1902-01193 [10]  |
| abs-1902-09244 [228] | abs-1911-04766 [193] | abs-2102-08778 [132]  | abs-2211-14492 [466]  | abs-2305-19888 [241]  | abs-2306-05747 [476] |
| abs-2312-13682 [408] | abs-2402-00459 [383] |                       |                       |                       |                      |

## 2 Conference Paper List

This section presents the information for all conference papers included in the survey. For space reasons, not all information about the papers can be presented in a single table, we therefore split the data into three parts. The first part contains the main bibliographical information for the paper. The paper are sorted by year of publication (newest first), and then alphabetically by key.

The key contains a hyperlink to the original source URL of the paper. You may have to navigate manually to download the actual paper content, and you may be unable to access the paper completely if it is behind a paywall for which you (or your organization) do not have access.

We then list the authors of the paper, in the other given in the bibtex file, abbreviating first names for space where we can identify them. Note that names with non-latin characters are not handled by latex. We use the form that is given in the bibtex file, but have excluded entries that cause latex to fail.

We then give the title of the publication, using the original capitalization of the title entry in the bibtex entry, which may differ from the format shown in the bibliography. We then (column LC) provide a link to a local copy, if it is present, and a link to the bibliography entry of the paper. We also show the year of publication, and the conference where the paper was published, using a short form abbreviation of the conference. This relies on a matching routine in the Java code to find the short

title, new conference series may require an additional entry in `ImportBibtex.java` to work properly. Finally we list the number of pages of the paper, this information is using the bibtex entry where possible, otherwise uses `pdfinfo` to extract the actual number of pages from the local copy. The final columns b and c provide links to the corresponding tables of extracted concepts and manual information. Note that the links to typically show the correct page, not do not necessarily scroll to the correct line in the table.

## 2.1 Papers from bibtex

Table 2: Works from bibtex (Total 310)

| Key  | Authors   | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|--|---|---|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| AalianPG23<br>AalianPG23                     | Y. Aalian, G. Pesant, M. Gamache  | Optimization of Short-Term Underground Mine Planning Using Constraint Programming   | Yes | [1]   | 2023 | CP 2023             | 16    | 0        | 0       | 311 | 613 |
| Bit-Monnot23<br>Bit-Monnot23                 | A. Bit-Monnot   | Enhancing Hybrid CP-SAT Search for Disjunctive Scheduling   | Yes | [84]  | 2023 | ECAI 2023           | 8     | 0        | 0       | 353 | 614 |
| EfthymiouY23<br>EfthymiouY23                 | N. Efthymiou, N. Yorke-Smith  | Predicting the Optimal Period for Cyclic Hoist Scheduling Problems  | Yes | [161] | 2023 | CPAIOR 2023         | 16    | 0        | 23      | 396 | 615 |
| JuvinHHL23<br>JuvinHHL23                     | C. Juvin, E. Hebrard, L. Houssin, P. Lopez  | An Efficient Constraint Programming Approach to Preemptive Job Shop Scheduling  | Yes | [268] | 2023 | CP 2023             | 16    | 0        | 0       | 457 | 616 |
| JuvinHL23<br>JuvinHL23                       | C. Juvin, L. Houssin, P. Lopez  | Constraint Programming for the Robust Two-Machine Flow-Shop Scheduling Problem with Budgeted Uncertainty                                | Yes | [269] | 2023 | CPAIOR 2023         | 16    | 0        | 11      | 458 | 617 |
| KameugneFND23<br>KameugneFND23               | R. Kameugne, Séverine Betmbe Fetgo, T. Noulamo, Clémentin Tayou Djamégni                        | Horizontally Elastic Edge Finder Rule for Cumulative Constraint Based on Slack and Density  | Yes | [273] | 2023 | CP 2023             | 17    | 0        | 0       | 461 | 618 |
| KimCMLLP23<br>KimCMLLP23                     | D. Kim, Y. Choi, K. Moon, M. Lee, K. Lee, Michael L. Pinedo                                     | Iterated Greedy Constraint Programming for Scheduling Steelmaking Continuous Casting  | Yes | [282] | 2023 | CPAIOR 2023         | 16    | 0        | 13      | 466 | 619 |
| Mehdizadeh-Somarin23<br>Mehdizadeh-Somarin23 | Z. Mehdizadeh-Somarin, R. Tavakkoli-Moghaddam, M. Rohaninejad, Z. Hanzálek, Behdin Vahedi Nouri | A Constraint Programming Model for a Reconfigurable Job Shop Scheduling Problem with Machine Availability                               | Yes | [357] | 2023 | APMS 2023           | 14    | 0        | 0       | 508 | 620 |
| PerezGSL23<br>PerezGSL23                     | G. Perez, G. Glorian, W. Suijlen, A. Lallouet   | A Constraint Programming Model for Scheduling the Unloading of Trains in Ports  | Yes | [407] | 2023 | ICTAI 2023          | 7     | 0        | 0       | 533 | 621 |
| PovedaAA23<br>PovedaAA23                     | G. Poveda, N. Álvarez, C. Artigues  | Partially Preemptive Multi Skill/Mode Resource-Constrained Project Scheduling with Generalized Precedence Relations and Calendars       | Yes | [417] | 2023 | CP 2023             | 21    | 0        | 0       | 537 | 622 |
| SquillaciPR23<br>SquillaciPR23               | S. Squillaci, C. Pralet, S. Roussel   | Scheduling Complex Observation Requests for a Constellation of Satellites: Large Neighborhood Search Approaches                         | Yes | [464] | 2023 | CPAIOR 2023         | 17    | 0        | 19      | 561 | 623 |
| TardivoDFMP23<br>TardivoDFMP23               | F. Tardivo, A. Dovier, A. Formisano, L. Michel, E. Pontelli                                     | Constraint Propagation on GPU: A Case Study for the Cumulative Constraint   | Yes | [474] | 2023 | CPAIOR 2023         | 18    | 0        | 30      | 566 | 624 |
| TasselGS23<br>TasselGS23                     | P. Tassel, M. Gebser, K. Schekotihin  | An End-to-End Reinforcement Learning Approach for Job-Shop Scheduling Problems Based on Constraint Programming                          | Yes | [475] | 2023 | ICAPS 2023          | 9     | 0        | 0       | 567 | 625 |
| WangB23<br>WangB23                           | R. Wang, N. Barnier   | Dynamic All-Different and Maximal Cliques Constraints for Fixed Job Scheduling  | Yes | [525] | 2023 | ICTAI 2023          | 8     | 0        | 0       | 594 | 626 |
| YuraszeckMC23<br>YuraszeckMC23               | F. Yuraszeck, G. Mejía, D. Canut-de-Bon   | A competitive constraint programming approach for the group shop scheduling problem   | Yes | [541] | 2023 | ANT 2023            | 6     | 1        | 15      | 604 | 627 |
| ArmstrongGOS22<br>ArmstrongGOS22             | E. Armstrong, M. Garraffa, B. O’Sullivan, H. Simonis  | A Two-Phase Hybrid Approach for the Hybrid Flexible Flowshop with Transportation Times  | Yes | [19]  | 2022 | CPAIOR 2022         | 13    | 0        | 14      | 321 | 628 |
| BoudreaultSLQ22<br>BoudreaultSLQ22           | R. Boudreault, V. Simard, D. Lafond, C. Quimper   | A Constraint Programming Approach to Ship Refit Project Scheduling  | Yes | [104] | 2022 | CP 2022             | 16    | 0        | 0       | 365 | 629 |
| GeitzGSSW22<br>GeitzGSSW22                   | M. Geitz, C. Grozea, W. Steigerwald, R. Stöhr, A. Wolf  | Solving the Extended Job Shop Scheduling Problem with AGVs - Classical and Quantum Approaches   | Yes | [196] | 2022 | CPAIOR 2022         | 18    | 0        | 24      | 417 | 630 |
| HebrardALLCMR22<br>HebrardALLCMR22           | E. Hebrard, C. Artigues, P. Lopez, A. Lussos, Steve A. Chien, A. Maillard, Gregg R. Rabideau    | An Efficient Approach to Data Transfer Scheduling for Long Range Space Exploration  | Yes | [230] | 2022 | IJCAI 2022          | 7     | 0        | 0       | 437 | 631 |
| JungblutK22<br>JungblutK22                   | P. Jungblut, D. Kranzlmüller  | Optimal Schedules for High-Level Programming Environments on FPGAs with Constraint Programming  | Yes | [267] | 2022 | IPDPS 2022          | 4     | 0        | 0       | 456 | 632 |
| LiFJZLL22<br>LiFJZLL22                       | X. Li, J. Fu, Z. Jia, Z. Zhao, S. Li, S. Liu  | Constraint Programming for a Novel Integrated Optimization of Blocking Job Shop Scheduling and Variable-Speed Transfer Robot Assignment | Yes | [319] | 2022 | ICNSC 2022          | 6     | 0        | 31      | 487 | 633 |

Table 2: Works from bibtex (Total 310)

| Key                               | Authors  | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|-----------------------------------|--|---|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| LuoB22 LuoB22                     | Yiqing L. Luo, J. Christopher Beck                                       | Packing by Scheduling: Using Constraint Programming to Solve a Complex 2D Cutting Stock Problem   | Yes | [346] | 2022 | CPAIOR 2022         | 17    | 0        | 28      | 501 | 634 |
| OuelletQ22 OuelletQ22             | Y. Ouellet, C. Quimper   | A MinCumulative Resource Constraint   | Yes | [398] | 2022 | CPAIOR 2022         | 17    | 1        | 22      | 529 | 635 |
| OujanaAYB22 OujanaAYB22           | S. Oujana, L. Amodeo, F. Yalaoui, D. Brodard                             | Solving a realistic hybrid and flexible flow shop scheduling problem through constraint programming: industrial case in a packaging company | Yes | [399] | 2022 | CoDIT 2022          | 6     | 1        | 21      | 530 | 636 |
| PopovicCGNC22 PopovicCGNC22       | L. Popovic, A. Côté, M. Gaha, F. Nguewouo, Q. Cappart                    | Scheduling the Equipment Maintenance of an Electric Power Transmission Network Using Constraint Programming                                 | Yes | [415] | 2022 | CP 2022             | 15    | 0        | 0       | 536 | 637 |
| SvancaraB22 SvancaraB22           | J. Svancara, R. Barták   | Tackling Train Routing via Multi-agent Pathfinding and Constraint-based Scheduling  | Yes | [469] | 2022 | ICAART 2022         | 8     | 0        | 0       | 563 | 638 |
| Teppan22 Teppan22                 | Erich Christian Teppan   | Types of Flexible Job Shop Scheduling: A Constraint Programming Experiment  | Yes | [478] | 2022 | ICAART 2022         | 8     | 0        | 0       | 568 | 639 |
| TouatBT22 TouatBT22               | M. Touat, B. Benhamou, Fatima Benbouzid-Si Tayeb                         | A Constraint Programming Model for the Scheduling Problem with Flexible Maintenance under Human Resource Constraints                        | Yes | [490] | 2022 | ICAART 2022         | 8     | 0        | 0       | 574 | 640 |
| WinterMMW22 WinterMMW22           | F. Winter, S. Meiswinkel, N. Musliu, D. Walkiewicz                       | Modeling and Solving Parallel Machine Scheduling with Contamination Constraints in the Agricultural Industry                                | Yes | [531] | 2022 | CP 2022             | 18    | 0        | 0       | 597 | 641 |
| ZhangBB22 ZhangBB22               | J. Zhang, Giovanni Lo Bianco, J. Christopher Beck                        | Solving Job-Shop Scheduling Problems with QUBO-Based Specialized Hardware   | Yes | [549] | 2022 | ICAPS 2022          | 9     | 0        | 0       | 605 | 642 |
| ZhangJZL22 ZhangJZL22             | H. Zhang, Y. Ji, Z. Zhao, S. Liu   | Constraint Programming for Modeling and Solving a Hybrid Flow Shop Scheduling Problem   | Yes | [548] | 2022 | ICNSC 2022          | 6     | 0        | 21      | 606 | 643 |
| AntuoriHHEN21 AntuoriHHEN21       | V. Antuori, E. Hebrard, M. Huguet, S. Essodaigui, A. Nguyen              | Combining Monte Carlo Tree Search and Depth First Search Methods for a Car Manufacturing Workshop Scheduling Problem                        | Yes | [15]  | 2021 | CP 2021             | 16    | 0        | 0       | 318 | 644 |
| ArmstrongGOS21 ArmstrongGOS21     | E. Armstrong, M. Garraffa, B. O'Sullivan, H. Simonis                     | The Hybrid Flexible Flowshop with Transportation Times  | Yes | [18]  | 2021 | CP 2021             | 18    | 1        | 0       | 320 | 645 |
| ArtiguesHQT21 ArtiguesHQT21       | C. Artigues, E. Hebrard, A. Quilliot, H. Toussaint                       | Multi-Mode RCPSP with Safety Margin Maximization: Models and Algorithms   | No  | [22]  | 2021 | ICORES 2021         | 8     | 0        | 0       | No  | 646 |
| Astrand0F21 Astrand0F21           | M. Åstrand, M. Johansson, Hamid Reza Feyzmahdavian                       | Short-Term Scheduling of Production Fleets in Underground Mines Using CP-Based LNS  | Yes | [26]  | 2021 | CPAIOR 2021         | 18    | 2        | 25      | 325 | 647 |
| BenderWS21 BenderWS21             | T. Bender, D. Wittwer, T. Schmidt  | Applying Constraint Programming to the Multi-mode Scheduling Problem in Harvest Logistics   | Yes | [73]  | 2021 | ICCL 2021           | 16    | 1        | 16      | 347 | 648 |
| GeibingerKKMMW21 GeibingerKKMMW21 | T. Geibinger, L. Kletzander, M. Krainz, F. Mischek, N. Musliu, F. Winter | Physician Scheduling During a Pandemic  | Yes | [192] | 2021 | CPAIOR 2021         | 10    | 0        | 6       | 414 | 649 |
| GeibingerMM21 GeibingerMM21       | T. Geibinger, F. Mischek, N. Musliu                                      | Constraint Logic Programming for Real-World Test Laboratory Scheduling  | Yes | [195] | 2021 | AAAI 2021           | 9     | 0        | 0       | 416 | 650 |
| HanenKP21 HanenKP21               | C. Hanen, Alix Munier Kordon, T. Pedersen                                | Two Deadline Reduction Algorithms for Scheduling Dependent Tasks on Parallel Processors   | Yes | [225] | 2021 | CPAIOR 2021         | 17    | 1        | 24      | 435 | 651 |
| HillTV21 HillTV21                 | A. Hill, J. Ticktin, Thomas W. M. Vossen                                 | A Computational Study of Constraint Programming Approaches for Resource-Constrained Project Scheduling with Autonomous Learning Effects     | Yes | [246] | 2021 | CPAIOR 2021         | 19    | 0        | 38      | 446 | 652 |
| KlankeBYE21 KlankeBYE21           | C. Klanke, Dominik R. Bleidorn, V. Yfantis, S. Engell                    | Combining Constraint Programming and Temporal Decomposition Approaches - Scheduling of an Industrial Formulation Plant                      | Yes | [283] | 2021 | CPAIOR 2021         | 16    | 3        | 13      | 467 | 653 |
| KovacsTKSG21 KovacsTKSG21         | B. Kovács, P. Tassel, W. Kohlenbrein, P. Schrott-Kostwein, M. Gebser     | Utilizing Constraint Optimization for Industrial Machine Workload Balancing   | Yes | [297] | 2021 | CP 2021             | 17    | 0        | 0       | 473 | 654 |
| LacknerMMWW21 LacknerMMWW21       | M. Lackner, C. Mrkvicka, N. Musliu, D. Walkiewicz, F. Winter             | Minimizing Cumulative Batch Processing Time for an Industrial Oven Scheduling Problem   | Yes | [309] | 2021 | CP 2021             | 18    | 0        | 0       | 482 | 655 |
| AntuoriHHEN20 AntuoriHHEN20       | V. Antuori, E. Hebrard, M. Huguet, S. Essodaigui, A. Nguyen              | Leveraging Reinforcement Learning, Constraint Programming and Local Search: A Case Study in Car Manufacturing                               | Yes | [14]  | 2020 | CP 2020             | 16    | 3        | 8       | 317 | 656 |

Table 2: Works from bibtex (Total 310)

| Key                                    | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|--|--|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| BarzegaranZP20<br>BarzegaranZP20       | M. Barzegaran, B. Zarrin, P. Pop                       | Quality-Of-Control-Aware Scheduling of Communication in TSN-Based Fog Computing Platforms Using Constraint Programming             | Yes | [50]  | 2020 | Fog-IoT 2020        | 9     | 0        | 0       | 337 | 657 |
| GodetLHS20<br>GodetLHS20               | A. Godet, X. Lorca, E. Hebrard, G. Simonin             | Using Approximation within Constraint Programming to Solve the Parallel Machine Scheduling Problem with Additional Unit Resources  | Yes | [203] | 2020 | AAAI 2020           | 8     | 1        | 0       | 423 | 658 |
| GroleazNS20<br>GroleazNS20             | L. Groleaz, Samba Ndojh Ndiaye, C. Solnon              | Solving the Group Cumulative Scheduling Problem with CPO and ACO   | Yes | [216] | 2020 | CP 2020             | 17    | 1        | 25      | 430 | 659 |
| GroleazNS20a<br>GroleazNS20a           | L. Groleaz, Samba Ndojh Ndiaye, C. Solnon              | ACO with automatic parameter selection for a scheduling problem with a group cumulative constraint                                 | Yes | [215] | 2020 | GECCO 2020          | 9     | 3        | 28      | 431 | 660 |
| Mercier-AubinGQ20<br>Mercier-AubinGQ20 | A. Mercier-Aubin, J. Gaudreault, C. Quimper            | Leveraging Constraint Scheduling: A Case Study to the Textile Industry   | Yes | [362] | 2020 | CPAIOR 2020         | 13    | 2        | 13      | 510 | 661 |
| NattafM20<br>NattafM20                 | M. Nattaf, A. Malapert                                 | Filtering Rules for Flow Time Minimization in a Parallel Machine Scheduling Problem  | Yes | [381] | 2020 | CP 2020             | 16    | 0        | 6       | 521 | 662 |
| TangB20<br>TangB20                     | Tanya Y. Tang, J. Christopher Beck                     | CP and Hybrid Models for Two-Stage Batching and Scheduling   | Yes | [472] | 2020 | CPAIOR 2020         | 16    | 6        | 12      | 565 | 663 |
| WangB20<br>WangB20                     | R. Wang, N. Barnier                                    | Global Propagation of Transition Cost for Fixed Job Scheduling   | Yes | [524] | 2020 | ECAI 2020           | 8     | 0        | 0       | 593 | 664 |
| WessenCS20<br>WessenCS20               | J. Wessén, M. Carlsson, C. Schulte                     | Scheduling of Dual-Arm Multi-tool Assembly Robots and Workspace Layout Optimization  | Yes | [529] | 2020 | CPAIOR 2020         | 10    | 2        | 11      | 596 | 665 |
| BadicaBIL19<br>BadicaBIL19             | A. Badica, C. Badica, M. Ivanovic, D. Logofatu         | Exploring the Space of Block Structured Scheduling Processes Using Constraint Logic Programming                                    | Yes | [30]  | 2019 | IDC 2019            | 11    | 2        | 6       | 327 | 666 |
| BehrensLM19<br>BehrensLM19             | Jan Kristof Behrens, R. Lange, M. Mansouri             | A Constraint Programming Approach to Simultaneous Task Allocation and Motion Scheduling for Industrial Dual-Arm Manipulation Tasks | Yes | [65]  | 2019 | ICRA 2019           | 7     | 12       | 18      | 343 | 667 |
| BogaerdW19<br>BogaerdW19               | Pim van den Bogaerd, Mathijs de Weerd                  | Lower Bounds for Uniform Machine Scheduling Using Decision Diagrams  | Yes | [504] | 2019 | CPAIOR 2019         | 16    | 1        | 16      | 357 | 668 |
| ColT19<br>ColT19                       | Giacomo Da Col, Erich Christian Teppan                 | Industrial Size Job Shop Scheduling Tackled by Present Day CP Solvers  | Yes | [133] | 2019 | CP 2019             | 17    | 11       | 12      | 382 | 669 |
| FrimodigS19<br>FrimodigS19             | S. Frimodig, C. Schulte                                | Models for Radiation Therapy Patient Scheduling  | Yes | [180] | 2019 | CP 2019             | 17    | 3        | 26      | 405 | 670 |
| FrohnerTR19<br>FrohnerTR19             | N. Frohner, S. Teuschl, Günther R. Raidl               | Casual Employee Scheduling with Constraint Programming and Metaheuristics  | Yes | [181] | 2019 | EUROCAST 2019       | 9     | 0        | 6       | 406 | 671 |
| GalleguillosKSB19<br>GalleguillosKSB19 | C. Galleguillos, Z. Kiziltan, A. Sirbu, Özalp Babaoglu | Constraint Programming-Based Job Dispatching for Modern HPC Applications   | Yes | [183] | 2019 | CP 2019             | 18    | 1        | 27      | 408 | 672 |
| GeibingerMM19<br>GeibingerMM19         | T. Geibinger, F. Mischek, N. Musliu                    | Investigating Constraint Programming for Real World Industrial Test Laboratory Scheduling  | Yes | [194] | 2019 | CPAIOR 2019         | 16    | 6        | 15      | 415 | 673 |
| KucukY19<br>KucukY19                   | M. Küçük, Seyda Topaloglu Yildiz                       | A Constraint Programming Approach for Agile Earth Observation Satellite Scheduling Problem   | Yes | [304] | 2019 | RAST 2019           | 5     | 0        | 0       | 478 | 674 |
| LiuLH19<br>LiuLH19                     | K. Liu, S. Löffler, P. Hofstedt                        | Solving the Talent Scheduling Problem by Parallel Constraint Programming   | Yes | [327] | 2019 | AIAI 2019           | 9     | 1        | 5       | 495 | 675 |
| MalapertN19<br>MalapertN19             | A. Malapert, M. Nattaf                                 | A New CP-Approach for a Parallel Machine Scheduling Problem with Time Constraints on Machine Qualifications                        | Yes | [351] | 2019 | CPAIOR 2019         | 17    | 1        | 7       | 506 | 676 |
| MurinR19<br>MurinR19                   | S. Murín, H. Rudová                                    | Scheduling of Mobile Robots Using Constraint Programming   | Yes | [373] | 2019 | CP 2019             | 16    | 2        | 22      | 517 | 677 |
| ParkUJR19<br>ParkUJR19                 | H. Park, J. Um, J. Jung, M. Ruskowski                  | Developing a Production Scheduling System for Modular Factory Using Constraint Programming   | Yes | [405] | 2019 | RAAD 2019           | 8     | 1        | 3       | 531 | 678 |
| Tom19<br>Tom19                         | M. Tom   | Fuzzy Multi-Constraint Programming Model for Weekly Meals Scheduling   | Yes | [487] | 2019 | FUZZ-IEEE 2019      | 6     | 0        | 21      | 573 | 679 |
| YangSS19<br>YangSS19                   | M. Yang, A. Schutt, Peter J. Stuckey                   | Time Table Edge Finding with Energy Variables  | Yes | [537] | 2019 | CPAIOR 2019         | 10    | 1        | 14      | 602 | 680 |



Table 2: Works from bibtex (Total 310)

| Key                                  | Authors   | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|--------------------------------------|---|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| ArbaouiY18<br>ArbaouiY18             | T. Arbaoui, F. Yalaoui  | Solving the Unrelated Parallel Machine Scheduling Problem with Additional Resources Using Constraint Programming             | Yes | [17]  | 2018 | ACIIDS 2018         | 10    | 2        | 14      | 319 | 681 |
| AstrandJZ18<br>AstrandJZ18           | M. Åstrand, M. Johansson, A. Zanarini                                   | Fleet Scheduling in Underground Mines Using Constraint Programming   | Yes | [27]  | 2018 | CPAIOR 2018         | 9     | 9        | 10      | 326 | 682 |
| BenediktSMVH18<br>BenediktSMVH18     | O. Benedikt, P. Sucha, I. Módos, M. Vlk, Z. Hanzálek                    | Energy-Aware Production Scheduling with Power-Saving Modes   | Yes | [76]  | 2018 | CPAIOR 2018         | 10    | 2        | 12      | 348 | 683 |
| CappartTSR18<br>CappartTSR18         | Q. Cappart, C. Thomas, P. Schaus, L. Rousseau                           | A Constraint Programming Approach for Solving Patient Transportation Problems  | Yes | [115] | 2018 | CP 2018             | 17    | 6        | 31      | 370 | 684 |
| DemirovicS18<br>DemirovicS18         | E. Demirovic, Peter J. Stuckey  | Constraint Programming for High School Timetabling: A Scheduling-Based Model with Hot Starts                                 | Yes | [150] | 2018 | CPAIOR 2018         | 18    | 4        | 16      | 389 | 685 |
| He0GLW18<br>He0GLW18                 | S. He, M. Wallace, G. Gange, A. Liebman, C. Wilson                      | A Fast and Scalable Algorithm for Scheduling Large Numbers of Devices Under Real-Time Pricing                                | Yes | [229] | 2018 | CP 2018             | 18    | 6        | 26      | 436 | 686 |
| HoYCLLC18<br>HoYCLLC18               | T. Ho, J. Yao, Y. Chang, F. Lai, J. Lai, S. Chu, W. Liao, H. Chiu       | A Platform for Dynamic Optimal Nurse Scheduling Based on Integer Linear Programming along with Multiple Criteria Constraints | Yes | [247] | 2018 | AICCC 2018          | 6     | 2        | 14      | 447 | 687 |
| KameugneFGOQ18<br>KameugneFGOQ18     | R. Kameugne, Séverine Betmbe Fetgo, V. Gingras, Y. Ouellet, C. Quimper  | Horizontally Elastic Not-First/Not-Last Filtering Algorithm for Cumulative Resource Constraint                               | Yes | [272] | 2018 | CPAIOR 2018         | 17    | 1        | 12      | 460 | 688 |
| Laborie18a<br>Laborie18a             | P. Laborie  | An Update on the Comparison of MIP, CP and Hybrid Approaches for Mixed Resource Allocation and Scheduling                    | Yes | [307] | 2018 | CPAIOR 2018         | 9     | 18       | 10      | 481 | 689 |
| MusliuSS18<br>MusliuSS18             | N. Musliu, A. Schutt, Peter J. Stuckey                                  | Solver Independent Rotating Workforce Scheduling   | Yes | [376] | 2018 | CPAIOR 2018         | 17    | 7        | 23      | 520 | 690 |
| NishikawaSTT18<br>NishikawaSTT18     | H. Nishikawa, K. Shimada, I. Taniguchi, H. Tomiyama                     | Scheduling of Malleable Fork-Join Tasks with Constraint Programming  | Yes | [384] | 2018 | CANDAR 2018         | 6     | 2        | 14      | 523 | 691 |
| NishikawaSTT18a<br>NishikawaSTT18a   | H. Nishikawa, K. Shimada, I. Taniguchi, H. Tomiyama                     | Scheduling of Malleable Tasks Based on Constraint Programming  | Yes | [385] | 2018 | TENCON 2018         | 6     | 1        | 9       | 524 | 692 |
| OuelletQ18<br>OuelletQ18             | Y. Ouellet, C. Quimper  | A $O(n \log^2 n)$ Checker and $O(n^2 \log n)$ Filtering Algorithm for the Energetic Reasoning                                | Yes | [397] | 2018 | CPAIOR 2018         | 18    | 6        | 16      | 528 | 693 |
| RiahiNS018<br>RiahiNS018             | V. Riahi, M. A. Hakim Newton, K. Su, A. Sattar                          | Local Search for Flowshops with Setup Times and Blocking Constraints   | Yes | [427] | 2018 | ICAPS 2018          | 9     | 0        | 0       | 544 | 694 |
| Tesch18<br>Tesch18                   | A. Tesch  | Improving Energetic Propagations for Cumulative Scheduling   | Yes | [482] | 2018 | CP 2018             | 17    | 5        | 21      | 570 | 695 |
| BofillCSV17<br>BofillCSV17           | M. Bofill, J. Coll, J. Suy, M. Villaret                                 | An Efficient SMT Approach to Solve MRCPPSP/max Instances with Tight Constraints on Resources                                 | Yes | [90]  | 2017 | CP 2017             | 9     | 1        | 12      | 354 | 696 |
| CappartS17<br>CappartS17             | Q. Cappart, P. Schaus   | Rescheduling Railway Traffic on Real Time Situations Using Time-Interval Variables   | Yes | [114] | 2017 | CPAIOR 2017         | 16    | 2        | 28      | 369 | 697 |
| CohenHB17<br>CohenHB17               | E. Cohen, G. Huang, J. Christopher Beck                                 | (I Can Get) Satisfaction: Preference-Based Scheduling for Concert-Goers at Multi-venue Music Festivals                       | Yes | [131] | 2017 | SAT 2017            | 17    | 1        | 12      | 381 | 698 |
| GelainPRVW17<br>GelainPRVW17         | M. Gelain, Maria Silvia Pini, F. Rossi, Kristen Brent Venable, T. Walsh | A Local Search Approach for Incomplete Soft Constraint Problems: Experimental Results on Meeting Scheduling Problems         | Yes | [197] | 2017 | CPAIOR 2017         | 16    | 1        | 5       | 418 | 699 |
| GoldwaserS17<br>GoldwaserS17         | A. Goldwaser, A. Schutt   | Optimal Torpedo Scheduling   | Yes | [206] | 2017 | CP 2017             | 16    | 0        | 10      | 424 | 700 |
| Hooker17<br>Hooker17                 | John N. Hooker  | Job Sequencing Bounds from Decision Diagrams   | Yes | [254] | 2017 | CP 2017             | 14    | 6        | 24      | 451 | 701 |
| KletzanderM17<br>KletzanderM17       | L. Kletzander, N. Musliu  | A Multi-stage Simulated Annealing Algorithm for the Torpedo Scheduling Problem   | Yes | [284] | 2017 | CPAIOR 2017         | 15    | 1        | 9       | 468 | 702 |
| LiuCGM17<br>LiuCGM17                 | T. Liu, Roberto Di Cosmo, M. Gabbrielli, J. Mauro                       | NightSplitter: A Scheduling Tool to Optimize (Sub)group Activities   | Yes | [328] | 2017 | CP 2017             | 17    | 0        | 15      | 493 | 703 |
| Madi-WambaLOBM17<br>Madi-WambaLOBM17 | G. Madi-Wamba, Y. Li, A. Orgerie, N. Beldiceanu, J. Menaud              | Green Energy Aware Scheduling Problem in Virtualized Datacenters   | Yes | [348] | 2017 | ICPADS 2017         | 8     | 1        | 8       | 504 | 704 |
| MossigeGSMC17<br>MossigeGSMC17       | M. Mossige, A. Gotlieb, H. Spieker, H. Meling, M. Carlsson              | Time-Aware Test Case Execution Scheduling for Cyber-Physical Systems   | Yes | [369] | 2017 | CP 2017             | 18    | 6        | 33      | 514 | 705 |

Table 2: Works from bibtex (Total 310)

| Key                                | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|------------------------------------|--|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| Pralet17 Pralet17                  | C. Pralet  | An Incomplete Constraint-Based System for Scheduling with Renewable Resources  | Yes | [418] | 2017 | CP 2017             | 19    | 1        | 30      | 538 | 706 |
| TranVNB17a<br>TranVNB17a           | Tony T. Tran, Tiago Stegun Vaquero, G. Nejat, J. Christopher Beck  | Robots in Retirement Homes: Applying Off-the-Shelf Planning and Scheduling to a Team of Assistive Robots (Extended Abstract) | Yes | [498] | 2017 | IJCAI 2017          | 5     | 1        | 0       | 579 | 707 |
| YoungFS17 YoungFS17                | Kenneth D. Young, T. Feydy, A. Schutt  | Constraint Programming Applied to the Multi-Skill Project Scheduling Problem   | Yes | [539] | 2017 | CP 2017             | 10    | 6        | 21      | 603 | 708 |
| BonfiettiZLM16<br>BonfiettiZLM16   | A. Bonfietti, A. Zanarini, M. Lombardi, M. Milano  | The Multirate Resource Constraint  | Yes | [100] | 2016 | CP 2016             | 17    | 0        | 11      | 363 | 709 |
| BoothNB16 BoothNB16                | Kyle E. C. Booth, G. Nejat, J. Christopher Beck  | A Constraint Programming Approach to Multi-Robot Task Allocation and Scheduling in Retirement Homes                          | Yes | [101] | 2016 | CP 2016             | 17    | 21       | 24      | 364 | 710 |
| BridiLBBM16<br>BridiLBBM16         | T. Bridi, M. Lombardi, A. Bartolini, L. Benini, M. Milano  | DARDIS: Distributed And Randomized DIspatching and Scheduling  | Yes | [108] | 2016 | ECAI 2016           | 2     | 0        | 0       | 366 | 711 |
| CauwelaertDMS16<br>CauwelaertDMS16 | Sascha Van Cauwelaert, C. Dejemeppe, J. Monette, P. Schaus   | Efficient Filtering for the Unary Resource with Family-Based Transition Times  | Yes | [121] | 2016 | CP 2016             | 16    | 1        | 12      | 373 | 712 |
| FontaineMH16<br>FontaineMH16       | D. Fontaine, Laurent D. Michel, Pascal Van Hentenryck  | Parallel Composition of Scheduling Solvers   | Yes | [176] | 2016 | CPAIOR 2016         | 11    | 3        | 0       | 402 | 713 |
| GilesH16 GilesH16                  | K. Giles, Willem-Jan van Hoeve   | Solving a Supply-Delivery Scheduling Problem with Constraint Programming   | Yes | [199] | 2016 | CP 2016             | 16    | 2        | 6       | 420 | 714 |
| GingrasQ16 GingrasQ16              | V. Gingras, C. Quimper   | Generalizing the Edge-Finder Rule for the Cumulative Constraint  | Yes | [200] | 2016 | IJCAI 2016          | 7     | 0        | 0       | 421 | 715 |
| HechingH16<br>HechingH16           | Aliza R. Heching, John N. Hooker   | Scheduling Home Hospice Care with Logic-Based Benders Decomposition  | Yes | [233] | 2016 | CPAIOR 2016         | 11    | 10       | 0       | 439 | 716 |
| JelinekB16 JelinekB16              | J. Jelinek, R. Barták  | Using Constraint Logic Programming to Schedule Solar Array Operations on the International Space Station                     | Yes | [265] | 2016 | PADL 2016           | 10    | 0        | 5       | 455 | 717 |
| LimHTB16 LimHTB16                  | B. Lim, Hassan L. Hijazi, S. Thiébaux, Menkes van den Briel  | Online HVAC-Aware Occupancy Scheduling with Adaptive Temperature Control   | Yes | [322] | 2016 | CP 2016             | 18    | 2        | 23      | 489 | 718 |
| LuoVLBM16<br>LuoVLBM16             | R. Luo, Richard Anthony Valenzano, Y. Li, J. Christopher Beck, Sheila A. McIlraith                               | Using Metric Temporal Logic to Specify Scheduling Problems   | Yes | [345] | 2016 | KR 2016             | 4     | 0        | 0       | 502 | 719 |
| Madi-WambaB16<br>Madi-WambaB16     | G. Madi-Wamba, N. Beldiceanu   | The TaskIntersection Constraint  | Yes | [347] | 2016 | CPAIOR 2016         | 16    | 0        | 0       | 503 | 720 |
| SchuttS16 SchuttS16                | A. Schutt, Peter J. Stuckey  | Explaining Producer/Consumer Constraints   | Yes | [447] | 2016 | CP 2016             | 17    | 3        | 23      | 552 | 721 |
| SzerediS16 SzerediS16              | R. Szeredi, A. Schutt  | Modelling and Solving Multi-mode Resource-Constrained Project Scheduling   | Yes | [470] | 2016 | CP 2016             | 10    | 9        | 14      | 564 | 722 |
| Tesch16 Tesch16                    | A. Tesch   | A Nearly Exact Propagation Algorithm for Energetic Reasoning in $O(n^2 \log n)$  | Yes | [481] | 2016 | CP 2016             | 27    | 4        | 14      | 569 | 723 |
| TranDRFWOVB16<br>TranDRFWOVB16     | Tony T. Tran, M. Do, Eleanor Gilbert Rieffel, J. Frank, Z. Wang, B. O’Gorman, D. Venturelli, J. Christopher Beck | A Hybrid Quantum-Classical Approach to Solving Scheduling Problems   | Yes | [494] | 2016 | SOCS 2016           | 9     | 3        | 0       | 577 | 724 |
| TranWDRFOVB16<br>TranWDRFOVB16     | Tony T. Tran, Z. Wang, M. Do, Eleanor Gilbert Rieffel, J. Frank, B. O’Gorman, D. Venturelli, J. Christopher Beck | Explorations of Quantum-Classical Approaches to Scheduling a Mars Lander Activity Problem                                    | Yes | [499] | 2016 | AAAI 2016           | 9     | 0        | 0       | 580 | 725 |
| BartakV15 BartakV15                | R. Barták, M. Vlk  | Reactive Recovery from Machine Breakdown in Production Scheduling with Temporal Distance and Resource Constraints            | Yes | [48]  | 2015 | ICAART 2015         | 12    | 0        | 0       | 335 | 726 |
| BofillGSV15<br>BofillGSV15         | M. Bofill, M. Garcia, J. Suy, M. Villaret  | MaxSAT-Based Scheduling of B2B Meetings  | Yes | [92]  | 2015 | CPAIOR 2015         | 9     | 7        | 8       | 356 | 727 |
| BurtLPS15 BurtLPS15                | Christina N. Burt, N. Lipovetzky, Adrian R. Pearce, Peter J. Stuckey   | Scheduling with Fixed Maintenance, Shared Resources and Nonlinear Feedrate Constraints: A Mine Planning Case Study           | Yes | [111] | 2015 | CPAIOR 2015         | 17    | 0        | 8       | 368 | 728 |
| DejemeppeCS15<br>DejemeppeCS15     | C. Dejemeppe, Sascha Van Cauwelaert, P. Schaus   | The Unary Resource with Transition Times   | Yes | [147] | 2015 | CP 2015             | 16    | 5        | 11      | 387 | 729 |

Table 2: Works from bibtex (Total 310)

| Key                   | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|-----------------------|--|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| EvenSH15 EvenSH15     | C. Even, A. Schutt, Pascal Van Hentenryck  | A Constraint Programming Approach for Non-preemptive Evacuation Scheduling                                       | Yes | [166] | 2015 | CP 2015             | 18    | 3        | 12      | 400 | 730 |
| GayHLS15 GayHLS15     | S. Gay, R. Hartert, C. Lecoutre, P. Schaus   | Conflict Ordering Search for Scheduling Problems   | Yes | [187] | 2015 | CP 2015             | 9     | 20       | 15      | 410 | 731 |
| GayHS15 GayHS15       | S. Gay, R. Hartert, P. Schaus  | Simple and Scalable Time-Table Filtering for the Cumulative Constraint   | Yes | [188] | 2015 | CP 2015             | 9     | 10       | 9       | 411 | 732 |
| GayHS15a GayHS15a     | S. Gay, R. Hartert, P. Schaus  | Time-Table Disjunctive Reasoning for the Cumulative Constraint   | Yes | [189] | 2015 | CPAIOR 2015         | 16    | 5        | 12      | 412 | 733 |
| KreterSS15 KreterSS15 | S. Kreter, A. Schutt, Peter J. Stuckey   | Modeling and Solving Project Scheduling with Calendars   | Yes | [298] | 2015 | CP 2015             | 17    | 7        | 16      | 476 | 734 |
| LimBTBB15             | B. Lim, Menkes van den Briel, S. Thiébaux, R. Bent, S. Backhaus                            | Large Neighborhood Search for Energy Aware Meeting Scheduling in Smart Buildings                                 | Yes | [323] | 2015 | CPAIOR 2015         | 15    | 4        | 18      | 488 | 735 |
| LombardiBM15          | M. Lombardi, A. Bonfietti, M. Milano   | Deterministic Estimation of the Expected Makespan of a POS Under Duration Uncertainty                            | Yes | [331] | 2015 | CP 2015             | 16    | 0        | 8       | 496 | 736 |
| MelgarejoLS15         | P. Aguiar-Melgarejo, P. Laborie, C. Solnon   | A Time-Dependent No-Overlap Constraint: Application to Urban Delivery Problems                                   | Yes | [8]   | 2015 | CPAIOR 2015         | 17    | 14       | 17      | 509 | 737 |
| MurphyMB15            | Seán Óg Murphy, O. Manzano, Kenneth N. Brown   | Design and Evaluation of a Constraint-Based Energy Saving and Scheduling Recommender System                      | Yes | [374] | 2015 | CP 2015             | 17    | 1        | 20      | 518 | 738 |
| PesantRR15            | G. Pesant, G. Rix, L. Rousseau   | A Comparative Study of MIP and CP Formulations for the B2B Scheduling Optimization Problem                       | Yes | [409] | 2015 | CPAIOR 2015         | 16    | 1        | 7       | 534 | 739 |
| PraletLJ15 PraletLJ15 | C. Pralet, S. Lemai-Chenevier, J. Jaubert  | Scheduling Running Modes of Satellite Instruments Using Constraint-Based Local Search                            | Yes | [419] | 2015 | CP 2015             | 16    | 0        | 8       | 539 | 740 |
| SialaAH15 SialaAH15   | M. Siala, C. Artigues, E. Hebrard  | Two Clause Learning Approaches for Disjunctive Scheduling  | Yes | [457] | 2015 | CP 2015             | 10    | 4        | 17      | 557 | 741 |
| VilimLS15 VilimLS15   | P. Vilím, P. Laborie, P. Shaw  | Failure-Directed Search for Constraint-Based Scheduling  | Yes | [518] | 2015 | CPAIOR 2015         | 17    | 31       | 19      | 592 | 742 |
| ZhouGL15 ZhouGL15     | J. Zhou, Y. Guo, G. Li   | On complex hybrid flexible flowshop scheduling problems based on constraint programming                          | Yes | [555] | 2015 | FSKD 2015           | 5     | 0        | 16      | 609 | 743 |
| AlesioNBG14           | Stefano Di Alesio, S. Nejati, Lionel C. Briand, A. Gotlieb                                 | Worst-Case Scheduling of Software Tasks - A Constraint Optimization Model to Support Performance Testing         | Yes | [154] | 2014 | CP 2014             | 18    | 3        | 19      | 315 | 744 |
| BartoliniBBLM14       | A. Bartolini, A. Borghesi, T. Bridi, M. Lombardi, M. Milano                                | Proactive Workload Dispatching on the EURORA Supercomputer   | Yes | [49]  | 2014 | CP 2014             | 16    | 12       | 3       | 336 | 745 |
| BessiereHMQW14        | C. Bessiere, E. Hebrard, M. Ménard, C. Quimper, T. Walsh                                   | Buffered Resource Constraint: Algorithms and Complexity  | Yes | [81]  | 2014 | CPAIOR 2014         | 16    | 1        | 3       | 351 | 746 |
| BofillEGPSV14         | M. Bofill, J. Espasa, M. Garcia, M. Palahí, J. Suy, M. Villaret                            | Scheduling B2B Meetings  | Yes | [91]  | 2014 | CP 2014             | 16    | 3        | 10      | 355 | 747 |
| BonfiettiLM14         | A. Bonfietti, M. Lombardi, M. Milano   | Disregarding Duration Uncertainty in Partial Order Schedules? Yes, We Can!                                       | Yes | [98]  | 2014 | CPAIOR 2014         | 16    | 3        | 12      | 361 | 748 |
| DejemeppeD14          | C. Dejemeppe, Y. Deville   | Continuously Degrading Resource and Interval Dependent Activity Durations in Nuclear Medicine Patient Scheduling | Yes | [148] | 2014 | CPAIOR 2014         | 9     | 0        | 7       | 388 | 749 |
| DerrienP14 DerrienP14 | A. Derrien, T. Petit   | A New Characterization of Relevant Intervals for Energetic Reasoning   | Yes | [152] | 2014 | CP 2014             | 9     | 14       | 0       | 390 | 750 |
| DerrienPZ14           | A. Derrien, T. Petit, S. Zampelli  | A Declarative Paradigm for Robust Cumulative Scheduling  | Yes | [153] | 2014 | CP 2014             | 9     | 3        | 10      | 391 | 751 |
| DoulabiRP14           | Seyed Hossein Hashemi Doulabi, L. Rousseau, G. Pesant                                      | A Constraint Programming-Based Column Generation Approach for Operating Room Planning and Scheduling             | Yes | [158] | 2014 | CPAIOR 2014         | 9     | 3        | 10      | 394 | 752 |
| FriedrichFMRSS14      | G. Friedrich, M. Frühstück, V. Mersheeva, A. Ryabokon, M. Sander, A. Starzacher, E. Teppan | Representing Production Scheduling with Constraint Answer Set Programming  | No  | [179] | 2014 | GOR 2014            | 7     | 3        | 2       | No  | 753 |
| GaySS14 GaySS14       | S. Gay, P. Schaus, Vivian De Smedt   | Continuous Casting Scheduling with Constraint Programming  | Yes | [190] | 2014 | CP 2014             | 15    | 7        | 11      | 413 | 754 |
| HoundjiSWD14          | Vinasétan Ratheil Houndji, P. Schaus, Laurence A. Wolsey, Y. Deville                       | The StockingCost Constraint  | Yes | [259] | 2014 | CP 2014             | 16    | 5        | 7       | 453 | 755 |

Table 2: Works from bibtex (Total 310)

| Key                                | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|------------------------------------|--|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| KoschB14 KoschB14                  | S. Kosch, J. Christopher Beck  | A New MIP Model for Parallel-Batch Scheduling with Non-identical Job Sizes   | Yes | [289] | 2014 | CPAIOR 2014         | 16    | 4        | 18      | 470 | 756 |
| LipovetzkyBPS14<br>LipovetzkyBPS14 | N. Lipovetzky, Christina N. Burt, Adrian R. Pearce, Peter J. Stuckey         | Planning for Mining Operations with Time and Resource Constraints  | Yes | [326] | 2014 | ICAPS 2014          | 9     | 0        | 0       | 492 | 757 |
| LouieVNB14<br>LouieVNB14           | Wing-Yue Geoffrey Louie, Tiago Stegun Vaquero, G. Nejat, J. Christopher Beck | An autonomous assistive robot for planning, scheduling and facilitating multi-user activities  | No  | [342] | 2014 | ICRA 2014           | 7     | 16       | 9       | No  | 758 |
| BonfiettiLM13<br>BonfiettiLM13     | A. Bonfietti, M. Lombardi, M. Milano   | De-Cycling Cyclic Scheduling Problems  | Yes | [97]  | 2013 | ICAPS 2013          | 5     | 0        | 0       | 360 | 759 |
| ChuGNSW13<br>ChuGNSW13             | G. Chu, S. Gaspers, N. Narodytska, A. Schutt, T. Walsh                       | On the Complexity of Global Scheduling Constraints under Structural Restrictions   | Yes | [126] | 2013 | IJCAI 2013          | 7     | 0        | 0       | 376 | 760 |
| CireCH13 CireCH13                  | André A. Ciré, E. Coban, John N. Hooker                                      | Mixed Integer Programming vs. Logic-Based Benders Decomposition for Planning and Scheduling  | Yes | [128] | 2013 | CPAIOR 2013         | 7     | 3        | 23      | 378 | 761 |
| GuSS13 GuSS13                      | H. Gu, A. Schutt, Peter J. Stuckey   | A Lagrangian Relaxation Based Forward-Backward Improvement Heuristic for Maximising the Net Present Value of Resource-Constrained Projects | Yes | [218] | 2013 | CPAIOR 2013         | 7     | 10       | 24      | 433 | 762 |
| HeinzKB13 HeinzKB13                | S. Heinz, W. Ku, J. Christopher Beck   | Recent Improvements Using Constraint Integer Programming for Resource Allocation and Scheduling  | Yes | [236] | 2013 | CPAIOR 2013         | 16    | 9        | 15      | 441 | 763 |
| KelarevaTK13<br>KelarevaTK13       | E. Kelareva, K. Tierney, P. Kilby  | CP Methods for Scheduling and Routing with Time-Dependent Task Costs   | Yes | [277] | 2013 | CPAIOR 2013         | 17    | 16       | 28      | 463 | 764 |
| LetortCB13 LetortCB13              | A. Letort, M. Carlsson, N. Beldiceanu  | A Synchronized Sweep Algorithm for the <i>k-dimensional cumulative</i> Constraint  | Yes | [317] | 2013 | CPAIOR 2013         | 16    | 3        | 10      | 486 | 765 |
| LombardiM13<br>LombardiM13         | M. Lombardi, M. Milano   | A Min-Flow Algorithm for Minimal Critical Set Detection in Resource Constrained Project Scheduling   | Yes | [338] | 2013 | ICAPS 2013          | 2     | 0        | 0       | 500 | 766 |
| OuelletQ13 OuelletQ13              | P. Ouellet, C. Quimper   | Time-Table Extended-Edge-Finding for the Cumulative Constraint   | Yes | [396] | 2013 | CP 2013             | 16    | 12       | 14      | 527 | 767 |
| SchuttFS13 SchuttFS13              | A. Schutt, T. Feydy, Peter J. Stuckey  | Scheduling Optional Tasks with Explanation   | Yes | [441] | 2013 | CP 2013             | 17    | 10       | 20      | 549 | 768 |
| SchuttFS13a<br>SchuttFS13a         | A. Schutt, T. Feydy, Peter J. Stuckey  | Explaining Time-Table-Edge-Finding Propagation for the Cumulative Resource Constraint  | Yes | [440] | 2013 | CPAIOR 2013         | 17    | 20       | 27      | 550 | 769 |
| TranTDB13<br>TranTDB13             | Tony T. Tran, D. Terekhov, Douglas G. Down, J. Christopher Beck              | Hybrid Queueing Theory and Scheduling Models for Dynamic Environments with Sequence-Dependent Setup Times                                  | Yes | [496] | 2013 | ICAPS 2013          | 9     | 0        | 0       | 578 | 770 |
| BillautHL12<br>BillautHL12         | J. Billaut, E. Hebrard, P. Lopez   | Complete Characterization of Near-Optimal Sequences for the Two-Machine Flow Shop Scheduling Problem                                       | Yes | [83]  | 2012 | CPAIOR 2012         | 15    | 1        | 19      | 352 | 771 |
| BonfiettiLBM12<br>BonfiettiLBM12   | A. Bonfietti, M. Lombardi, L. Benini, M. Milano                              | Global Cyclic Cumulative Constraint  | Yes | [95]  | 2012 | CPAIOR 2012         | 16    | 2        | 11      | 359 | 772 |
| BonfiettiM12<br>BonfiettiM12       | A. Bonfietti, M. Milano  | A Constraint-based Approach to Cyclic Resource-Constrained Scheduling Problem  | Yes | [99]  | 2012 | DC SIAAI 2012       | 3     | 0        | 0       | 362 | 773 |
| GuSW12 GuSW12                      | H. Gu, Peter J. Stuckey, Mark G. Wallace                                     | Maximising the Net Present Value of Large Resource-Constrained Projects  | Yes | [219] | 2012 | CP 2012             | 15    | 5        | 20      | 434 | 774 |
| HeinzB12 HeinzB12                  | S. Heinz, J. Christopher Beck  | Reconsidering Mixed Integer Programming and MIP-Based Hybrids for Scheduling   | Yes | [235] | 2012 | CPAIOR 2012         | 17    | 8        | 21      | 440 | 775 |
| IfrimOS12 IfrimOS12                | G. Ifrim, B. O'Sullivan, H. Simonis  | Properties of Energy-Price Forecasts for Scheduling  | Yes | [261] | 2012 | CP 2012             | 16    | 6        | 20      | 454 | 776 |
| LetortBC12 LetortBC12              | A. Letort, N. Beldiceanu, M. Carlsson  | A Scalable Sweep Algorithm for the cumulative Constraint   | Yes | [316] | 2012 | CP 2012             | 16    | 18       | 12      | 485 | 777 |
| RendlPHPR12<br>RendlPHPR12         | A. Rendl, M. Prandtstetter, G. Hiermann, J. Puchinger, Günther R. Raidl      | Hybrid Heuristics for Multimodal Homecare Scheduling   | Yes | [426] | 2012 | CPAIOR 2012         | 17    | 14       | 14      | 543 | 778 |
| SchuttCSW12<br>SchuttCSW12         | A. Schutt, G. Chu, Peter J. Stuckey, Mark G. Wallace                         | Maximising the Net Present Value for Resource-Constrained Project Scheduling   | Yes | [439] | 2012 | CPAIOR 2012         | 17    | 18       | 21      | 548 | 779 |
| SerraNM12 SerraNM12                | T. Serra, G. Nishioka, Fernando J. M. Marcellino                             | The Offshore Resources Scheduling Problem: Detailing a Constraint Programming Approach   | Yes | [450] | 2012 | CP 2012             | 17    | 0        | 8       | 555 | 780 |
| SimoninAHL12<br>SimoninAHL12       | G. Simonin, C. Artigues, E. Hebrard, P. Lopez                                | Scheduling Scientific Experiments on the Rosetta/Philae Mission  | Yes | [458] | 2012 | CP 2012             | 15    | 3        | 8       | 558 | 781 |

Table 2: Works from bibtex (Total 310)

| Key                              | Authors  | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|----------------------------------|--|---|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| TranB12 TranB12                  | Tony T. Tran, J. Christopher Beck                                    | Logic-based Benders Decomposition for Alternative Resource Scheduling with Sequence Dependent Setups                          | Yes | [493] | 2012 | ECAI 2012           | 6     | 0        | 0       | 576 | 782 |
| ZhangLS12 ZhangLS12              | X. Zhang, Z. Lv, X. Song   | Model and Solution for Hot Strip Rolling Scheduling Problem Based on Constraint Programming Method                            | Yes | [552] | 2012 | CIT 2012            | 4     | 1        | 3       | 607 | 783 |
| BajestaniB11<br>BajestaniB11     | Maliheh Aramon Bajestani, J. Christopher Beck                        | Scheduling an Aircraft Repair Shop  | Yes | [31]  | 2011 | ICAPS 2011          | 8     | 0        | 0       | 328 | 784 |
| BonfiettiLBM11<br>BonfiettiLBM11 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano                      | A Constraint Based Approach to Cyclic RCPSP   | Yes | [94]  | 2011 | CP 2011             | 15    | 3        | 14      | 358 | 785 |
| ChapadosJR11<br>ChapadosJR11     | N. Chapados, M. Joliveau, L. Rousseau                                | Retail Store Workforce Scheduling by Expected Operating Income Maximization   | Yes | [125] | 2011 | CPAIOR 2011         | 6     | 5        | 12      | 375 | 786 |
| ClercqPBJ11<br>ClercqPBJ11       | Alexis De Clercq, T. Petit, N. Beldiceanu, N. Jussien                | Filtering Algorithms for Discrete Cumulative Problems with Overloads of Resource  | Yes | [129] | 2011 | CP 2011             | 16    | 3        | 11      | 379 | 787 |
| EdisO11 EdisO11                  | Emrah B. Edis, C. Oguz   | Parallel Machine Scheduling with Additional Resources: A Lagrangian-Based Constraint Programming Approach                     | Yes | [160] | 2011 | CPAIOR 2011         | 7     | 5        | 16      | 395 | 788 |
| GrimesH11 GrimesH11              | D. Grimes, E. Hebrard  | Models and Strategies for Variants of the Job Shop Scheduling Problem   | Yes | [211] | 2011 | CP 2011             | 17    | 5        | 18      | 428 | 789 |
| HeinzS11 HeinzS11                | S. Heinz, J. Schulz  | Explanations for the Cumulative Constraint: An Experimental Study   | Yes | [238] | 2011 | SEA 2011            | 10    | 5        | 12      | 442 | 790 |
| HermenierDL11<br>HermenierDL11   | F. Hermenier, S. Demasse, X. Lorca                                   | Bin Repacking Scheduling in Virtualized Datacenters   | Yes | [245] | 2011 | CP 2011             | 15    | 28       | 5       | 445 | 791 |
| KameugneFSN11<br>KameugneFSN11   | R. Kameugne, Laure Pauline Fotso, Joseph D. Scott, Y. Ngo-Kateu      | A Quadratic Edge-Finding Filtering Algorithm for Cumulative Resource Constraints  | Yes | [274] | 2011 | CP 2011             | 15    | 7        | 9       | 462 | 792 |
| LahimerLH11<br>LahimerLH11       | A. Lahimer, P. Lopez, M. Haouari                                     | Climbing Depth-Bounded Adjacent Discrepancy Search for Solving Hybrid Flow Shop Scheduling Problems with Multiprocessor Tasks | Yes | [311] | 2011 | CPAIOR 2011         | 14    | 3        | 15      | 483 | 793 |
| LombardiBMB11<br>LombardiBMB11   | M. Lombardi, A. Bonfietti, M. Milano, L. Benini                      | Precedence Constraint Posting for Cyclic Scheduling Problems  | Yes | [332] | 2011 | CPAIOR 2011         | 17    | 1        | 13      | 497 | 794 |
| Vilim11 Vilim11                  | P. Vilím   | Timetable Edge Finding Filtering Algorithm for Discrete Cumulative Resources  | Yes | [515] | 2011 | CPAIOR 2011         | 16    | 28       | 6       | 590 | 795 |
| ZibranR11 ZibranR11              | Minhaz F. Zibran, Chanchal K. Roy                                    | Conflict-Aware Optimal Scheduling of Code Clone Refactoring: A Constraint Programming Approach                                | Yes | [557] | 2011 | ICPC 2011           | 4     | 17       | 18      | 611 | 796 |
| ZibranR11a ZibranR11a            | Minhaz F. Zibran, Chanchal K. Roy                                    | A Constraint Programming Approach to Conflict-Aware Optimal Scheduling of Prioritized Code Clone Refactoring                  | Yes | [558] | 2011 | SCAM 2011           | 10    | 26       | 27      | 612 | 797 |
| BertholdHLS10<br>BertholdHLS10   | T. Berthold, S. Heinz, Marco E. Lübbecke, Rolf H. Möhring, J. Schulz | A Constraint Integer Programming Approach for Resource-Constrained Project Scheduling   | Yes | [80]  | 2010 | CPAIOR 2010         | 5     | 28       | 10      | 350 | 798 |
| CobanH10 CobanH10                | E. Coban, John N. Hooker   | Single-Facility Scheduling over Long Time Horizons by Logic-Based Benders Decomposition                                       | Yes | [130] | 2010 | CPAIOR 2010         | 5     | 9        | 9       | 380 | 799 |
| Davenport10<br>Davenport10       | Andrew J. Davenport  | Integrated Maintenance Scheduling for Semiconductor Manufacturing   | Yes | [139] | 2010 | CPAIOR 2010         | 5     | 9        | 2       | 385 | 800 |
| GrimesH10 GrimesH10              | D. Grimes, E. Hebrard  | Job Shop Scheduling with Setup Times and Maximal Time-Lags: A Simple Constraint Programming Approach                          | Yes | [210] | 2010 | CPAIOR 2010         | 15    | 13       | 20      | 427 | 801 |
| LombardiM10<br>LombardiM10       | M. Lombardi, M. Milano   | Constraint Based Scheduling to Deal with Uncertain Durations and Self-Timed Execution   | Yes | [335] | 2010 | CP 2010             | 15    | 1        | 11      | 499 | 802 |
| MakMS10 MakMS10                  | K. Mak, J. Ma, W. Su   | A constraint programming approach for production scheduling of multi-period virtual cellular manufacturing systems            | Yes | [349] | 2010 | ICNC 2010           | 5     | 1        | 3       | 505 | 803 |
| SchuttW10 SchuttW10              | A. Schutt, A. Wolf   | A New $O(n^2 \log n)$ Not-First/Not-Last Pruning Algorithm for Cumulative Resource Constraints                                | Yes | [448] | 2010 | CP 2010             | 15    | 13       | 14      | 553 | 804 |
| SunLYL10 SunLYL10                | Z. Sun, H. Li, M. Yao, N. Li   | Scheduling Optimization Techniques for FlexRay Using Constraint-Programming   | Yes | [467] | 2010 | GreenCom 2010       | 6     | 4        | 8       | 562 | 805 |

Table 2: Works from bibtex (Total 310)

| Key                                  | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|--------------------------------------|--|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| Acuna-AgostMFG09<br>Acuna-AgostMFG09 | R. Acuna-Agost, P. Michelon, D. Feillet, S. Gueye                              | Constraint Programming and Mixed Integer Linear Programming for Rescheduling Trains under Disrupted Operations   | Yes | [5]   | 2009 | CPAIOR 2009         | 2     | 3        | 2       | 313 | 806 |
| AronssonBK09<br>AronssonBK09         | M. Aronsson, M. Bohlin, P. Kreuger   | MILP formulations of cumulative constraints for railway scheduling - A comparative study                         | Yes | [20]  | 2009 | ATMOS 2009          | 13    | 0        | 0       | 322 | 807 |
| Baptiste09 Baptiste09                | P. Baptiste  | Constraint-Based Schedulers, Do They Really Work?  | Yes | [34]  | 2009 | CP 2009             | 1     | 0        | 0       | 329 | 808 |
| GrimesHM09<br>GrimesHM09             | D. Grimes, E. Hebrard, A. Malapert   | Closing the Open Shop: Contradicting Conventional Wisdom   | Yes | [213] | 2009 | CP 2009             | 9     | 15       | 12      | 429 | 809 |
| Laborie09 Laborie09                  | P. Laborie   | IBM ILOG CP Optimizer for Detailed Scheduling Illustrated on Three Problems                                      | Yes | [306] | 2009 | CPAIOR 2009         | 15    | 53       | 2       | 480 | 810 |
| LombardiM09<br>LombardiM09           | M. Lombardi, M. Milano   | A Precedence Constraint Posting Approach for the RCPSP with Time Lags and Variable Durations                     | Yes | [333] | 2009 | CP 2009             | 15    | 7        | 12      | 498 | 811 |
| MonetteDH09<br>MonetteDH09           | J. Monette, Y. Deville, Pascal Van Hentenryck                                  | Just-In-Time Scheduling with Constraint Programming  | Yes | [366] | 2009 | ICAPS 2009          | 8     | 0        | 0       | 513 | 812 |
| SchuttFSW09<br>SchuttFSW09           | A. Schutt, T. Feydy, Peter J. Stuckey, M. Wallace                              | Why Cumulative Decomposition Is Not as Bad as It Sounds  | Yes | [442] | 2009 | CP 2009             | 16    | 34       | 11      | 551 | 813 |
| ThiruvadyBME09<br>ThiruvadyBME09     | Dhananjay R. Thiruvady, C. Blum, B. Meyer, Andreas T. Ernst                    | Hybridizing Beam-ACO with Constraint Programming for Single Machine Job Scheduling                               | Yes | [483] | 2009 | HM 2009             | 15    | 13       | 12      | 571 | 814 |
| Vilim09 Vilim09                      | P. Vilím   | Edge Finding Filtering Algorithm for Discrete Cumulative Resources in $O(kn \log n)$                             | Yes | [513] | 2009 | CP 2009             | 15    | 25       | 4       | 588 | 815 |
| Vilim09a Vilim09a                    | P. Vilím   | Max Energy Filtering Algorithm for Discrete Cumulative Resources   | Yes | [514] | 2009 | CPAIOR 2009         | 15    | 13       | 4       | 589 | 816 |
| BarlattCG08<br>BarlattCG08           | A. Barlatt, Amy Mainville Cohn, Oleg Yu. Gusikhin                              | A Hybrid Approach for Solving Shift-Selection and Task-Sequencing Problems                                       | Yes | [41]  | 2008 | CPAIOR 2008         | 5     | 1        | 9       | 332 | 817 |
| BeldiceanuCP08<br>BeldiceanuCP08     | N. Beldiceanu, M. Carlsson, E. Poder   | New Filtering for the cumulative Constraint in the Context of Non-Overlapping Rectangles                         | Yes | [70]  | 2008 | CPAIOR 2008         | 15    | 8        | 9       | 345 | 818 |
| DoomsH08 DoomsH08                    | G. Dooms, Pascal Van Hentenryck  | Gap Reduction Techniques for Online Stochastic Project Scheduling  | Yes | [157] | 2008 | CPAIOR 2008         | 16    | 1        | 2       | 393 | 819 |
| HentenryckM08<br>HentenryckM08       | Pascal Van Hentenryck, L. Michel   | The Steel Mill Slab Design Problem Revisited   | Yes | [244] | 2008 | CPAIOR 2008         | 5     | 13       | 3       | 444 | 820 |
| LauLN08 LauLN08                      | Hoong Chuin Lau, Kong Wei Lye, Viet Bang Nguyen                                | A Combinatorial Auction Framework for Solving Decentralized Scheduling Problems (Extended Abstract)              | Yes | [313] | 2008 | CPAIOR 2008         | 5     | 0        | 4       | 484 | 821 |
| MouraSCL08<br>MouraSCL08             | Arnaldo Vieira Moura, Cid C. de Souza, André A. Ciré, Tony Minoru Tamura Lopes | Planning and Scheduling the Operation of a Very Large Oil Pipeline Network                                       | Yes | [371] | 2008 | CP 2008             | 16    | 11       | 10      | 515 | 822 |
| MouraSCL08a<br>MouraSCL08a           | Arnaldo Vieira Moura, Cid C. de Souza, André A. Ciré, Tony Minoru Tamura Lopes | Heuristics and Constraint Programming Hybridizations for a Real Pipeline Planning and Scheduling Problem         | Yes | [370] | 2008 | CSE 2008            | 8     | 5        | 14      | 516 | 823 |
| PoderB08 PoderB08                    | E. Poder, N. Beldiceanu  | Filtering for a Continuous Multi-Resources cumulative Constraint with Resource Consumption and Production        | Yes | [411] | 2008 | ICAPS 2008          | 8     | 0        | 0       | 535 | 824 |
| WatsonB08 WatsonB08                  | J. Watson, J. Christopher Beck   | A Hybrid Constraint Programming / Local Search Approach to the Job-Shop Scheduling Problem                       | Yes | [528] | 2008 | CPAIOR 2008         | 15    | 14       | 17      | 595 | 825 |
| AkkerDH07 AkkerDH07                  | J. M. van den Akker, G. Diepen, J. A. Hoogeveen                                | A Column Generation Based Destructive Lower Bound for Resource Constrained Project Scheduling Problems           | Yes | [503] | 2007 | CPAIOR 2007         | 15    | 2        | 8       | 314 | 826 |
| BeldiceanuP07<br>BeldiceanuP07       | N. Beldiceanu, E. Poder  | A Continuous Multi-resources <i>cumulative</i> Constraint with Positive-Negative Resource Consumption-Production | Yes | [71]  | 2007 | CPAIOR 2007         | 15    | 4        | 7       | 346 | 827 |
| DavenportKRSH07<br>DavenportKRSH07   | Andrew J. Davenport, J. Kalagnanam, C. Reddy, S. Siegel, J. Hou                | An Application of Constraint Programming to Generating Detailed Operations Schedules for Steel Manufacturing     | Yes | [140] | 2007 | CP 2007             | 13    | 1        | 2       | 386 | 828 |
| GarganiR07<br>GarganiR07             | A. Gargani, P. Refalo  | An Efficient Model and Strategy for the Steel Mill Slab Design Problem   | Yes | [184] | 2007 | CP 2007             | 13    | 17       | 5       | 409 | 829 |

Table 2: Works from bibtex (Total 310)

| Key                                    | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|--|--|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| HoeveGSL07<br>HoeveGSL07               | Willem Jan van Hoeve, Carla P. Gomes, B. Selman, M. Lombardi                   | Optimal Multi-Agent Scheduling with Constraint Programming   | Yes | [506] | 2007 | AAAI 2007           | 6     | 0        | 0       | 448 | 830 |
| KeriK07 KeriK07                        | A. Kéri, T. Kis  | Computing Tight Time Windows for RCPSPWET with the Primal-Dual Method  | Yes | [279] | 2007 | CPAIOR 2007         | 14    | 1        | 13      | 464 | 831 |
| KovacsB07 KovacsB07                    | A. Kovács, J. Christopher Beck   | A Global Constraint for Total Weighted Completion Time   | Yes | [290] | 2007 | CPAIOR 2007         | 15    | 2        | 12      | 471 | 832 |
| KrogtLPHJ07<br>KrogtLPHJ07             | Roman van der Krogt, J. Little, K. Pulliam, S. Hanhilammi, Y. Jin              | Scheduling for Cellular Manufacturing  | Yes | [505] | 2007 | CP 2007             | 13    | 2        | 3       | 477 | 833 |
| Limtanyakul07<br>Limtanyakul07         | K. Limtanyakul   | Scheduling of Tests on Vehicle Prototypes Using Constraint and Integer Programming   | Yes | [324] | 2007 | GOR 2007            | 6     | 2        | 3       | 491 | 834 |
| MonetteDD07<br>MonetteDD07             | J. Monette, Y. Deville, P. Dupont  | A Position-Based Propagator for the Open-Shop Problem  | Yes | [365] | 2007 | CPAIOR 2007         | 14    | 0        | 12      | 512 | 835 |
| NethercoteSBBDT07<br>NethercoteSBBDT07 | N. Nethercote, Peter J. Stuckey, R. Becket, S. Brand, Gregory J. Duck, G. Tack | MiniZinc: Towards a Standard CP Modelling Language   | Yes | [382] | 2007 | CP 2007             | 15    | 344      | 5       | 522 | 836 |
| RossiTHP07<br>RossiTHP07               | R. Rossi, A. Tarim, B. Hnich, Steven D. Prestwich                              | Replenishment Planning for Stochastic Inventory Systems with Shortage Cost   | Yes | [431] | 2007 | CPAIOR 2007         | 15    | 6        | 10      | 546 | 837 |
| Beck06 Beck06                          | J. Christopher Beck  | An Empirical Study of Multi-Point Constructive Search for Constraint-Based Scheduling  | Yes | [52]  | 2006 | ICAPS 2006          | 10    | 0        | 0       | 338 | 838 |
| BeniniBGM06<br>BeniniBGM06             | L. Benini, D. Bertozzi, A. Guerri, M. Milano                                   | Allocation, Scheduling and Voltage Scaling on Energy Aware MPSoCs  | Yes | [77]  | 2006 | CPAIOR 2006         | 15    | 18       | 10      | 349 | 839 |
| GomesHS06<br>GomesHS06                 | Carla P. Gomes, Willem Jan van Hoeve, B. Selman                                | Constraint Programming for Distributed Planning and Scheduling   | Yes | [209] | 2006 | AAAI 2006           | 2     | 0        | 0       | 426 | 840 |
| KhemmoudjPB06<br>KhemmoudjPB06         | Mohand Ou Idir Khemmoudj, M. Porcheron, H. Bennaïeur                           | When Constraint Programming and Local Search Solve the Scheduling Problem of Electricité de France Nuclear Power Plant Outages | Yes | [281] | 2006 | CP 2006             | 13    | 8        | 8       | 465 | 841 |
| KovacsV06 KovacsV06                    | A. Kovács, J. Váncza   | Progressive Solutions: A Simple but Efficient Dominance Rule for Practical RCPSP   | Yes | [296] | 2006 | CPAIOR 2006         | 13    | 2        | 7       | 475 | 842 |
| LiuJ06 LiuJ06                          | Y. Liu, Y. Jiang   | LP-TPOP: Integrating Planning and Scheduling Through Constraint Programming  | Yes | [329] | 2006 | PRICAI 2006         | 5     | 0        | 0       | 494 | 843 |
| QuSN06 QuSN06                          | Y. Qu, J. Soininen, J. Nurmi   | Using Constraint Programming to Achieve Optimal Prefetch Scheduling for Dependent Tasks on Run-Time Reconfigurable Devices     | Yes | [424] | 2006 | SoC 2006            | 4     | 2        | 5       | 541 | 844 |
| AbrilSB05 AbrilSB05                    | M. Abril, Miguel A. Salido, F. Barber  | Distributed Constraints for Large-Scale Scheduling Problems  | Yes | [4]   | 2005 | CP 2005             | 1     | 0        | 0       | 312 | 845 |
| ArtiouchineB05<br>ArtiouchineB05       | K. Artiouchine, P. Baptiste  | Inter-distance Constraint: An Extension of the All-Different Constraint for Scheduling Equal Length Jobs                       | Yes | [24]  | 2005 | CP 2005             | 15    | 3        | 11      | 324 | 846 |
| BeckW05 BeckW05                        | J. Christopher Beck, N. Wilson   | Proactive Algorithms for Scheduling with Probabilistic Durations   | Yes | [61]  | 2005 | IJCAI 2005          | 6     | 0        | 0       | 342 | 847 |
| CarchraeBF05<br>CarchraeBF05           | T. Carchrae, J. Christopher Beck, Eugene C. Freuder                            | Methods to Learn Abstract Scheduling Models  | Yes | [116] | 2005 | CP 2005             | 1     | 0        | 0       | 371 | 848 |
| ChuX05 ChuX05                          | Y. Chu, Q. Xia   | A Hybrid Algorithm for a Class of Resource Constrained Scheduling Problems   | Yes | [127] | 2005 | CPAIOR 2005         | 15    | 13       | 13      | 377 | 849 |
| DilkinaDH05<br>DilkinaDH05             | B. Dilkina, L. Duan, William S. Havens   | Extending Systematic Local Search for Job Shop Scheduling Problems   | Yes | [155] | 2005 | CP 2005             | 5     | 2        | 7       | 392 | 850 |
| FortinZDF05<br>FortinZDF05             | J. Fortin, P. Zielinski, D. Dubois, H. Fargier                                 | Interval Analysis in Scheduling  | Yes | [177] | 2005 | CP 2005             | 15    | 13       | 11      | 403 | 851 |
| FrankK05 FrankK05                      | J. Frank, E. Kürklü  | Mixed Discrete and Continuous Algorithms for Scheduling Airborne Astronomy Observations  | Yes | [178] | 2005 | CPAIOR 2005         | 18    | 4        | 4       | 404 | 852 |
| Geske05 Geske05                        | U. Geske   | Railway Scheduling with Declarative Constraint Programming   | Yes | [198] | 2005 | INAP 2005           | 18    | 2        | 3       | 419 | 853 |
| GodardLN05<br>GodardLN05               | D. Godard, P. Laborie, W. Nuijten  | Randomized Large Neighborhood Search for Cumulative Scheduling   | Yes | [201] | 2005 | ICAPS 2005          | 9     | 0        | 0       | 422 | 854 |
| HebrardTW05<br>HebrardTW05             | E. Hebrard, P. Tyler, T. Walsh   | Computing Super-Schedules  | Yes | [232] | 2005 | CP 2005             | 1     | 0        | 3       | 438 | 855 |

Table 2: Works from bibtex (Total 310)

| Key                            | Authors   | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|--------------------------------|---|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| Hooker05a Hooker05a            | John N. Hooker  | Planning and Scheduling to Minimize Tardiness  | Yes | [251] | 2005 | CP 2005             | 14    | 30       | 10      | 450 | 856 |
| KovacsEKV05<br>KovacsEKV05     | A. Kovács, P. Egri, T. Kis, J. Váncza                           | Proterv-II: An Integrated Production Planning and Scheduling System  | Yes | [293] | 2005 | CP 2005             | 1     | 2        | 3       | 472 | 857 |
| MoffittPP05<br>MoffittPP05     | Michael D. Moffitt, B. Peintner, Martha E. Pollack              | Augmenting Disjunctive Temporal Problems with Finite-Domain Constraints  | Yes | [363] | 2005 | AAAI 2005           | 6     | 0        | 0       | 511 | 858 |
| QuirogaZH05<br>QuirogaZH05     | O. Quiroga, L. Zeballos, Gabriela P. Henning                    | A Constraint Programming Approach to Tool Allocation and Resource Scheduling in FMS  | Yes | [425] | 2005 | ICRA 2005           | 6     | 2        | 7       | 542 | 859 |
| SchuttWS05<br>SchuttWS05       | A. Schutt, A. Wolf, G. Schrader                                 | Not-First and Not-Last Detection for Cumulative Scheduling in $O(n^3 \log n)$  | Yes | [449] | 2005 | INAP 2005           | 15    | 6        | 4       | 554 | 860 |
| Vilim05 Vilim05                | P. Vilím  | Computing Explanations for the Unary Resource Constraint   | Yes | [512] | 2005 | CPAIOR 2005         | 14    | 5        | 8       | 587 | 861 |
| WolfS05 WolfS05                | A. Wolf, G. Schrader  | $O(n \log n)$ Overload Checking for the Cumulative Constraint and Its Application  | Yes | [533] | 2005 | INAP 2005           | 14    | 6        | 6       | 599 | 862 |
| WuBB05 WuBB05                  | Christine Wei Wu, Kenneth N. Brown, J. Christopher Beck         | Scheduling with Uncertain Start Dates  | Yes | [535] | 2005 | CP 2005             | 1     | 0        | 0       | 601 | 863 |
| ArtiguesBF04<br>ArtiguesBF04   | C. Artigues, S. Belmokhtar, D. Feillet                          | A New Exact Solution Algorithm for the Job Shop Problem with Sequence-Dependent Setup Times  | Yes | [21]  | 2004 | CPAIOR 2004         | 13    | 16       | 9       | 323 | 864 |
| BeckW04 BeckW04                | J. Christopher Beck, N. Wilson                                  | Job Shop Scheduling with Probabilistic Durations   | Yes | [60]  | 2004 | ECAI 2004           | 5     | 0        | 0       | 341 | 865 |
| HentenryckM04<br>HentenryckM04 | Pascal Van Hentenryck, L. Michel                                | Scheduling Abstractions for Local Search   | Yes | [243] | 2004 | CPAIOR 2004         | 16    | 12       | 14      | 443 | 866 |
| Hooker04 Hooker04              | John N. Hooker  | A Hybrid Method for Planning and Scheduling  | Yes | [249] | 2004 | CP 2004             | 12    | 39       | 9       | 449 | 867 |
| KovacsV04 KovacsV04            | A. Kovács, J. Váncza  | Completable Partial Solutions in Constraint Programming and Constraint-Based Scheduling  | Yes | [295] | 2004 | CP 2004             | 15    | 3        | 12      | 474 | 868 |
| LimRX04 LimRX04                | A. Lim, B. Rodrigues, Z. Xu                                     | Solving the Crane Scheduling Problem Using Intelligent Search Schemes  | Yes | [321] | 2004 | CP 2004             | 5     | 5        | 6       | 490 | 869 |
| MaraveliasG04<br>MaraveliasG04 | Christos T. Maravelias, Ignacio E. Grossmann                    | Using MILP and CP for the Scheduling of Batch Chemical Processes   | Yes | [354] | 2004 | CPAIOR 2004         | 20    | 15       | 15      | 507 | 870 |
| Sadykov04 Sadykov04            | R. Sadykov  | A Hybrid Branch-And-Cut Algorithm for the One-Machine Scheduling Problem   | Yes | [434] | 2004 | CPAIOR 2004         | 7     | 11       | 7       | 547 | 871 |
| Vilim04 Vilim04                | P. Vilím  | $O(n \log n)$ Filtering Algorithms for Unary Resource Constraint   | Yes | [511] | 2004 | CPAIOR 2004         | 13    | 22       | 5       | 586 | 872 |
| VilimBC04 VilimBC04            | P. Vilím, R. Barták, O. Cepek                                   | Unary Resource Constraint with Optional Activities   | Yes | [516] | 2004 | CP 2004             | 15    | 13       | 4       | 591 | 873 |
| VillaverdeP04<br>VillaverdeP04 | K. Villaverde, E. Pontelli                                      | An Investigation of Scheduling in Distributed Constraint Logic Programming   | No  | [519] | 2004 | ISCA 2004           | 6     | 0        | 0       | No  | 874 |
| WolinskiKG04<br>WolinskiKG04   | C. Wolinski, K. Kuchcinski, Maya B. Gokhale                     | A Constraints Programming Approach to Communication Scheduling on SoPC Architectures   | Yes | [534] | 2004 | DSD 2004            | 8     | 0        | 9       | 600 | 875 |
| BeckPS03 BeckPS03              | J. Christopher Beck, P. Prosser, E. Selensky                    | Vehicle Routing and Job Shop Scheduling: What's the Difference?  | Yes | [58]  | 2003 | ICAPS 2003          | 10    | 0        | 0       | 340 | 876 |
| DannaP03 DannaP03              | E. Danna, L. Perron   | Structured vs. Unstructured Large Neighborhood Search: A Case Study on Job-Shop Scheduling Problems with Earliness and Tardiness Costs | Yes | [137] | 2003 | CP 2003             | 5     | 21       | 3       | 384 | 877 |
| Kumar03 Kumar03                | T. K. Satish Kumar  | Incremental Computation of Resource-Envelopes in Producer-Consumer Models  | Yes | [303] | 2003 | CP 2003             | 15    | 4        | 2       | 479 | 878 |
| OddiPCC03<br>OddiPCC03         | A. Oddi, N. Policella, A. Cesta, G. Cortellessa                 | Generating High Quality Schedules for a Spacecraft Memory Downlink Problem   | Yes | [394] | 2003 | CP 2003             | 15    | 8        | 6       | 526 | 879 |
| ValleMGT03<br>ValleMGT03       | Carmelo Del Valle, Antonio A. Márquez, Rafael M. Gasca, M. Toro | On Selecting and Scheduling Assembly Plans Using Constraint Programming  | Yes | [502] | 2003 | KES 2003            | 8     | 7        | 7       | 581 | 880 |
| Vilim03 Vilim03                | P. Vilím  | Computing Explanations for Global Scheduling Constraints   | Yes | [510] | 2003 | CP 2003             | 1     | 1        | 1       | 585 | 881 |
| Wolf03 Wolf03                  | A. Wolf   | Pruning while Sweeping over Task Intervals   | Yes | [532] | 2003 | CP 2003             | 15    | 11       | 7       | 598 | 882 |
| Bartak02 Bartak02              | R. Barták   | Visopt ShopFloor: On the Edge of Planning and Scheduling   | Yes | [43]  | 2002 | CP 2002             | 16    | 6        | 4       | 333 | 883 |
| Bartak02a Bartak02a            | R. Barták   | Visopt ShopFloor: Going Beyond Traditional Scheduling  | Yes | [42]  | 2002 | ERCIM/CologNet 2002 | 15    | 1        | 9       | 334 | 884 |



Table 2: Works from bibtex (Total 310)

| Key                                | Authors   | Title  | LC  | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b   | c   |
|------------------------------------|---|--|-----|-------|------|------------------------|-------|-------------|------------|-----|-----|
| BeldiceanuC02<br>BeldiceanuC02     | N. Beldiceanu, M. Carlsson                                  | A New Multi-resource cumulatives Constraint with Negative Heights  | Yes | [68]  | 2002 | CP 2002                | 17    | 33          | 9          | 344 | 885 |
| ElkhyariGJ02<br>ElkhyariGJ02       | A. Elkhyari, C. Gu  ret, N. Jussien                         | Conflict-Based Repair Techniques for Solving Dynamic Scheduling Problems   | Yes | [162] | 2002 | CP 2002                | 6     | 1           | 6          | 397 | 886 |
| ElkhyariGJ02a<br>ElkhyariGJ02a     | A. Elkhyari, C. Gu  ret, N. Jussien                         | Solving Dynamic Resource Constraint Project Scheduling Problems Using New Constraint Programming Tools                           | Yes | [163] | 2002 | PATAT 2002             | 24    | 9           | 20         | 398 | 887 |
| HookerY02 HookerY02                | John N. Hooker, H. Yan                                      | A Relaxation of the Cumulative Constraint  | Yes | [258] | 2002 | CP 2002                | 5     | 8           | 7          | 452 | 888 |
| KamarainenS02<br>KamarainenS02     | O. Kamarainen, Hani El Sakkout                              | Local Probing Applied to Scheduling  | Yes | [270] | 2002 | CP 2002                | 17    | 9           | 13         | 459 | 889 |
| Muscettola02<br>Muscettola02       | N. Muscettola   | Computing the Envelope for Stepwise-Constant Resource Allocations  | Yes | [375] | 2002 | CP 2002                | 16    | 14          | 4          | 519 | 890 |
| Vilim02 Vilim02                    | P. Vil  m   | Batch Processing with Sequence Dependent Setup Times   | Yes | [509] | 2002 | CP 2002                | 1     | 6           | 1          | 584 | 891 |
| ZhuS02 ZhuS02                      | Kenny Qili Zhu, Andrew E. Santosa                           | A Meeting Scheduling System Based on Open Constraint Programming   | Yes | [556] | 2002 | CAiSE 2002             | 5     | 0           | 5          | 610 | 892 |
| Thorsteinsson01<br>Thorsteinsson01 | Erlendur S. Thorsteinsson                                   | Branch-and-Check: A Hybrid Framework Integrating Mixed Integer Programming and Constraint Logic Programming                      | Yes | [485] | 2001 | CP 2001                | 15    | 67          | 12         | 572 | 893 |
| VanczaM01 VanczaM01                | J. V  ncza, A. M  rkus                                      | A Constraint Engine for Manufacturing Process Planning   | Yes | [507] | 2001 | CP 2001                | 15    | 2           | 19         | 582 | 894 |
| VerfaillieL01<br>VerfaillieL01     | G. Verfaillie, M. Lema  tre                                 | Selecting and Scheduling Observations for Agile Satellites: Some Lessons from the Constraint Reasoning Community Point of View   | Yes | [508] | 2001 | CP 2001                | 15    | 11          | 6          | 583 | 895 |
| AngelsmarkJ00<br>AngelsmarkJ00     | O. Angelsmark, P. Jonsson                                   | Some Observations on Durations, Scheduling and Allen’s Algebra   | Yes | [13]  | 2000 | CP 2000                | 5     | 1           | 9          | 316 | 896 |
| FocacciLN00<br>FocacciLN00         | F. Focacci, P. Laborie, W. Nuijten                          | Solving Scheduling Problems with Setup Times and Alternative Resources   | Yes | [175] | 2000 | AIPS 2000              | 10    | 0           | 0          | 401 | 897 |
| KorbaaYG99<br>KorbaaYG99           | O. Korbaa, P. Yim, J. Gentina                               | Solving transient scheduling problem for cyclic production using timed Petri nets and constraint programming                     | Yes | [287] | 1999 | ECC 1999               | 8     | 1           | 0          | 469 | 898 |
| CestaOS98 CestaOS98                | A. Cesta, A. Oddi, Stephen F. Smith                         | Scheduling Multi-capacitated Resources Under Complex Temporal Constraints  | Yes | [124] | 1998 | CP 1998                | 1     | 5           | 0          | 374 | 899 |
| FrostD98 FrostD98                  | D. Frost, R. Dechter  | Optimizing with Constraints: A Case Study in Scheduling Maintenance of Electric Power Units                                      | Yes | [182] | 1998 | CP 1998                | 1     | 10          | 2          | 407 | 900 |
| GruianK98 GruianK98                | F. Gruian, K. Kuchcinski                                    | Operation Binding and Scheduling for Low Power Using Constraint Logic Programming  | Yes | [217] | 1998 | EUROMICRO 1998         | 8     | 5           | 10         | 432 | 901 |
| PembertonG98<br>PembertonG98       | Joseph C. Pemberton, Flavius Galiber III                    | A constraint-based approach to satellite scheduling  | Yes | [406] | 1998 | DIMACS 1998            | 14    | 26          | 0          | 532 | 902 |
| RodosekW98<br>RodosekW98           | R. Rodosek, M. Wallace                                      | A Generic Model and Hybrid Algorithm for Hoist Scheduling Problems   | Yes | [428] | 1998 | CP 1998                | 15    | 19          | 10         | 545 | 903 |
| Shaw98 Shaw98                      | P. Shaw   | Using Constraint Programming and Local Search Methods to Solve Vehicle Routing Problems  | Yes | [452] | 1998 | CP 1998                | 15    | 630         | 11         | 556 | 904 |
| BaptisteP97<br>BaptisteP97         | P. Baptiste, Claude Le Pape                                 | Constraint Propagation and Decomposition Techniques for Highly Disjunctive and Highly Cumulative Project Scheduling Problems     | Yes | [37]  | 1997 | CP 1997                | 15    | 8           | 10         | 331 | 905 |
| BeckDF97 BeckDF97                  | J. Christopher Beck, Andrew J. Davenport, Mark S. Fox       | Five Pitfalls of Empirical Scheduling Research   | Yes | [54]  | 1997 | CP 1997                | 15    | 3           | 12         | 339 | 906 |
| BoucherBVBL97<br>BoucherBVBL97     | E. Boucher, A. Bachelu, C. Varnier, P. Baptiste, B. Legeard | Multi-criteria Comparison Between Algorithmic, Constraint Logic and Specific Constraint Programming on a Real Scheduling Problem | No  | [103] | 1997 | PACT 1997              | 18    | 0           | 0          | No  | 907 |
| Caseau97 Caseau97                  | Y. Caseau   | Using Constraint Propagation for Complex Scheduling Problems: Managing Size, Complex Resources and Travel                        | Yes | [120] | 1997 | CP 1997                | 4     | 0           | 0          | 372 | 908 |

Table 2: Works from bibtex (Total 310)

| Key                              | Authors  | Title   | LC  | Cite  | Year | Conference<br>/Journal      | Pages | Nr<br>Cites | Nr<br>Refs | b   | c   |
|----------------------------------|--|---|-----|-------|------|-----------------------------|-------|-------------|------------|-----|-----|
| PapeB97 PapeB97                  | Claude Le Pape, P. Baptiste  | A Constraint Programming Library for Preemptive and Non-Preemptive Scheduling                               | No  | [403] | 1997 | PACT 1997                   | 20    | 0           | 0          | No  | 909 |
| BrusoniCLMMT96<br>BrusoniCLMMT96 | V. Brusoni, L. Console, E. Lamma, P. Mello, M. Milano, P. Terenziani | Resource-Based vs. Task-Based Approaches for Scheduling Problems  | Yes | [110] | 1996 | ISMIS 1996                  | 10    | 1           | 9          | 367 | 910 |
| Colombani96<br>Colombani96       | Y. Colombani   | Constraint Programming: an Efficient and Practical Approach to Solving the Job-Shop Problem                 | Yes | [135] | 1996 | CP 1996                     | 15    | 4           | 5          | 383 | 911 |
| Zhou96 Zhou96                    | J. Zhou  | A Constraint Program for Solving the Job-Shop Problem   | Yes | [553] | 1996 | CP 1996                     | 15    | 10          | 7          | 608 | 912 |
| Goltz95 Goltz95                  | H. Goltz   | Reducing Domains for Search in CLP(FD) and Its Application to Job-Shop Scheduling                           | Yes | [208] | 1995 | CP 1995                     | 14    | 7           | 7          | 425 | 913 |
| Puget95 Puget95                  | J. Puget   | Applications of Constraint Programming  | Yes | [421] | 1995 | CP 1995                     | 4     | 6           | 2          | 540 | 914 |
| Simonis95 Simonis95              | H. Simonis   | The CHIP System and Its Applications  | Yes | [460] | 1995 | CP 1995                     | 4     | 7           | 3          | 559 | 915 |
| SimonisC95 SimonisC95            | H. Simonis, T. Cornelissens  | Modelling Producer/Consumer Constraints   | Yes | [462] | 1995 | CP 1995                     | 14    | 17          | 8          | 560 | 916 |
| Touraivane95<br>Touraivane95     | Touraivane   | Constraint Programming and Industrial Applications  | Yes | [491] | 1995 | CP 1995                     | 3     | 2           | 1          | 575 | 917 |
| JourdanFRD94<br>JourdanFRD94     | J. Jourdan, F. Fages, D. Rozzonelli, A. Demeure                      | Data Alignment and Task Scheduling On Parallel Machines Using Concurrent Constraint Model-based Programming | No  | [266] | 1994 | ILPS 1994                   | 1     | 0           | 0          | No  | 918 |
| NuijtenA94 NuijtenA94            | W. P. M. Nuijten, Emile H. L. Aarts                                  | Constraint Satisfaction for Multiple Capacitated Job Shop Scheduling  | Yes | [392] | 1994 | ECAI 1994                   | 5     | 0           | 0          | 525 | 919 |
| Wallace94 Wallace94              | M. Wallace   | Applying Constraints for Scheduling   | No  | [521] | 1994 | Constraint Programming 1994 | 19    | 0           | 0          | No  | 920 |
| BaptisteLV92<br>BaptisteLV92     | P. Baptiste, B. Legeard, C. Varnier                                  | Hoist scheduling problem: an approach based on constraint logic programming                                 | Yes | [40]  | 1992 | ICRA 1992                   | 6     | 13          | 6          | 330 | 921 |
| ErtlK91 ErtlK91                  | M. Anton Ertl, A. Krall  | Optimal Instruction Scheduling using Constraint Logic Programming   | Yes | [164] | 1991 | PLILP 1991                  | 12    | 14          | 14         | 399 | 922 |

## 2.2 Extracted Concepts

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                 | Pages | Concepts  | Classification                          | Constraints  | Prog Languages | CP Systems   | Areas                                | Industries          | Benchmarks  | Algorithm           | a   | c   |
|----------------------|-------|---|---|--|----------------|--|--------------------------------------|---------------------|---|---------------------|-----|-----|
| AalianPG23 [1]       | 16    | scheduling, preempt, activity, flow-shop, order, transportation, machine, make-span, resource   |   | cycle, alwaysIn, cumulative, noOverlap, endBeforeStart                                   |                | CPO, Cplex   | steel cable                          | mining industry     | real-world  |                     | 1   | 613 |
| AbrilSB05 [4]        | 1     | distributed, scheduling, multi-agent, order   |   |  |                |  | railway                              |                     |   |                     | 233 | 845 |
| Acuna-AgostMFG09 [5] | 2     | re-scheduling, order, scheduling, transportation  |   |  |                |  | railway                              |                     | Roadef  |                     | 194 | 806 |
| AkkerDH07 [503]      | 15    | resource, due-date, scheduling, make-span, precedence, order, cmax, completion-time, machine, job, lateness, release-date, sequence dependent setup, preempt                      | RCPSP, single machine, parallel machine | cumulative   |                | Cplex  |                                      |                     |   |                     | 214 | 826 |
| AlesioNBG14 [154]    | 18    | preempt, job-shop, distributed, scheduling, completion-time, make-span, resource, open-shop, order, job, activity, task   |   | alldifferent   |                | OPL, Cplex   | automotive                           |                     | benchmark   |                     | 132 | 744 |
| AngelsmarkJ00 [13]   | 5     | resource, job, order, scheduling, task, job-shop  |   |  |                |  |                                      |                     |   |                     | 284 | 896 |
| AntuoriHHEN20 [14]   | 16    | release-date, resource, job, order, due-date, completion-time, tardiness, scheduling, machine, task, job-shop, precedence   |   | alldifferent, circuit, cycle   |                | Choco Solver   | torpedo                              |                     | random instance, generated instance, gitlab, benchmark, industrial instance                                     |                     | 44  | 656 |
| AntuoriHHEN21 [15]   | 16    | release-date, resource, transportation, job, order, due-date, tardiness, scheduling, machine, task, job-shop, precedence  |   | cycle  | C++, Java      | Choco Solver, Gecode                                     | automotive, car manufacturing, drone | automotive industry | gitlab, supplementary material  |                     | 32  | 644 |
| ArbaouiY18 [17]      | 10    | setup-time, order, machine, make-span, sequence dependent setup, completion-time, cmax, resource, job, scheduling   | single machine, parallel machine        | alternative constraint, noOverlap, cumulative  | C++            | OZ, Cplex  |                                      |                     | benchmark   |                     | 69  | 681 |
| ArmstrongGOS21 [18]  | 18    | machine, transportation, flow-shop, job-shop, scheduling, job, make-span, order, completion-time, sequence dependent setup, preempt, resource, setup-time, precedence, task, cmax | HFF                                     | alternative constraint, cycle, table constraint, circuit, diffn, bin-packing, cumulative | Java, Prolog   | OZ, MiniZinc, CPO, Chuffed, Gecode, SICStus, Cplex, CHIP | robot                                | packaging industry  | instance generator, industry partner, zenodo, supplementary material, real-world, industrial partner, benchmark | energetic reasoning | 33  | 645 |
| ArmstrongGOS22 [19]  | 13    | machine, transportation, flow-shop, scheduling, job, re-scheduling, make-span, order, completion-time, resource, task, cmax   | HFF, parallel machine                   | noOverlap, cumulative  | Prolog         | OZ, OPL, SICStus   |                                      |                     | real-world, benchmark   |                     | 16  | 628 |
| AronssonBK09 [20]    | 13    | job-shop, transportation, order, job, task  |   | cumulative   | Prolog         | Cplex, CHIP  | railway                              |                     | real-world, real-life   | sweep               | 195 | 807 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts  | Classification                   | Constraints                    | Prog Languages | CP Systems                  | Areas   | Industries   | Benchmarks   | Algorithm                         | a   | c   |
|---------------------|-------|---|----------------------------------|--------------------------------|----------------|-----------------------------|---|--|--|-----------------------------------|-----|-----|
| ArtiguesBF04 [21]   | 13    | job, batch process, cmax, make-span, release-date, resource, precedence, completion-time, sequence dependent setup, job-shop, setup-time, preempt, scheduling, order, machine |                                  | disjunctive                    | C++            | Ilog Scheduler, Ilog Solver |   |  | benchmark  | edge-finding                      | 252 | 864 |
| ArtiouchineB05 [24] | 15    | re-scheduling, release-date, scheduling, order, completion-time, job, resource, make-span, activity, preempt, open-shop, machine, precedence, job-shop                        | parallel machine, single machine | disjunctive, cumulative        |                | Ilog Scheduler              | aircraft  |  | generated instance, random instance                  | not-last, edge-finding, not-first | 234 | 846 |
| Astrand0F21 [26]    | 18    | resource, open-shop, task, machine, precedence, job-shop, make-span, order, job, activity, scheduling   |                                  | cycle, disjunctive             |                | Gecode                      | farming, drone, forestry, robot, satellite, agriculture | potash industry, mining industry, mineral industry | benchmark, real-world, real-life, generated instance |                                   | 35  | 647 |
| AstrandJZ18 [27]    | 9     | resource, task, machine, make-span, order, activity, scheduling   | single machine                   | disjunctive, cumulative, cycle |                | Gecode                      | hoist, robot  | potash industry                                    |  | time-tabling                      | 70  | 682 |
| BadicaBIL19 [30]    | 11    | completion-time, resource, order, activity, machine, multi-agent, distributed, make-span, scheduling  |                                  | cycle                          |                | ECLiPSe, Gecode             |   |  | github   |                                   | 54  | 666 |
| BajestaniB11 [31]   | 8     | resource, scheduling, machine, inventory, transportation, due-date, order, tardiness, job, make-span, re-scheduling   | JSSP, single machine             | cumulative, cycle, circuit     |                | Ilog Solver, Cplex          | railway, aircraft                                       |  |  |                                   | 172 | 784 |
| Baptiste09 [34]     | 1     | scheduling  |                                  |                                |                |                             |   |  |  |                                   | 196 | 808 |
| BaptisteLV92 [40]   | 6     |   |                                  |                                |                |                             |   |  |  |                                   | 309 | 921 |
| BaptisteP97 [37]    | 15    | resource, task, preempt, precedence, release-date, flow-shop, job-shop, scheduling, re-scheduling, make-span, order, job, activity, due-date                                  | RCPSP                            | disjunctive, cumulative        | C++            | Claire, CHIP                |   |  | benchmark  | edge-finding, edge-finder         | 293 | 905 |
| BarlattCG08 [41]    | 5     | scheduling, resource, setup-time, job, task, machine, flow-shop, job-shop, transportation   |                                  |                                |                |                             | automotive, pipeline                                    |  | real-world   |                                   | 205 | 817 |
| Bartak02 [43]       | 16    | make-span, scheduling, machine, continuous-process, job, resource, activity, lateness, job-shop, task, precedence, earliness, order   |                                  | disjunctive, cumulative        | Prolog         | SICStus, OZ                 | dairies   |  | real-life  | edge-finding, time-tabling        | 271 | 883 |
| Bartak02a [42]      | 15    | activity, re-scheduling, earliness, job-shop, resource, scheduling, make-span, task, precedence, order, machine, tardiness, job   |                                  | cumulative, disjunctive        |                | Ilog Scheduler              | dairies   |  | benchmark, real-life                                 | time-tabling, edge-finding        | 272 | 884 |
| BartakV15 [48]      | 12    | job-shop, resource, scheduling, make-span, precedence, order, machine, job, lateness, activity, re-scheduling, setup-time   |                                  |                                |                |                             |   |  | real-world, real-life                                | sweep                             | 114 | 726 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                 | Pages | Concepts  | Classification                   | Constraints                        | Prog Languages | CP Systems                      | Areas                             | Industries | Benchmarks                                  | Algorithm                  | a   | c   |
|----------------------|-------|---|----------------------------------|------------------------------------|----------------|---------------------------------|-----------------------------------|------------|---|----------------------------|-----|-----|
| BartoliniBBLM14 [49] | 16    | resource, tardiness, task, job, activity, make-span, machine, scheduling  |                                  | alternative constraint, cumulative |                |                                 | super-computer                    |            |   |                            | 133 | 745 |
| BarzegaranZP20 [50]  | 9     | re-scheduling, resource, distributed, machine, task, scheduling, order  |                                  |                                    | Java           | OR-Tools                        | automotive, robot                 |            |   |                            | 45  | 657 |
| Beck06 [52]          | 10    | due-date, flow-shop, order, scheduling, make-span, machine, resource, job, job-shop, tardiness  |                                  |                                    |                | Ilog Scheduler                  |                                   |            | benchmark                                   |                            | 226 | 838 |
| BeckDF97 [54]        | 15    | precedence, release-date, due-date, re-scheduling, make-span, order, scheduling, resource, inventory, machine, job, job-shop, task, activity  | single machine                   | cycle, cumulative                  |                |                                 | robot                             |            | benchmark, real-world                       | edge-finding               | 294 | 906 |
| BeckPS03 [58]        | 10    | job, job-shop, task, activity, precedence, release-date, due-date, re-scheduling, make-span, transportation, earliness, order, tardiness, scheduling, flow-time, resource, completion-time, machine, setup-time | RCPSP                            |                                    |                | Ilog Scheduler                  | robot                             |            | benchmark, real-world                       |                            | 264 | 876 |
| BeckW04 [60]         | 5     | job-shop, machine, job, activity, order, distributed, make-span, scheduling, flow-shop, resource  | single machine                   |                                    |                | Ilog Scheduler                  |                                   |            |   | edge-finding, time-tabling | 253 | 865 |
| BeckW05 [61]         | 6     | job-shop, job, activity, order, make-span, scheduling, flow-shop, resource  |                                  |                                    |                | Ilog Scheduler                  |                                   |            |   | edge-finder                | 235 | 847 |
| BehrensLM19 [65]     | 7     | order, setup-time, resource, task, machine, distributed, multi-agent, scheduling, make-span   |                                  |                                    | Python         | OR-Tools, MiniZinc, OZ          | robot                             |            | real-world, github                          |                            | 55  | 667 |
| BeldiceanuC02 [68]   | 17    | order, producer/consumer, scheduling, machine, task, resource, activity   | single machine                   | cumulative                         | Prolog         | SICStus, CHIP, OZ               | crew-scheduling                   |            | real-life, random instance, benchmark       | sweep                      | 273 | 885 |
| BeldiceanuCP08 [70]  | 15    | resource, task, scheduling, order   |                                  | geost, cumulative, disjunctive     | Prolog         | SICStus, CHIP, OPL              | rectangle-packing, perfect-square |            | benchmark                                   | edge-finding, sweep        | 206 | 818 |
| BeldiceanuP07 [71]   | 15    | preempt, scheduling, release-date, task, resource, order, due-date  |                                  | cumulative, disjunctive            |                |                                 |                                   |            |   | sweep                      | 215 | 827 |
| BenderWS21 [73]      | 16    | preempt, activity, task, order, machine, make-span, job, distributed, resource, setup-time, scheduling  | RCPSP                            | noOverlap                          | Python         |                                 | agriculture                       |            |   |                            | 36  | 648 |
| BenediktSMVH18 [76]  | 10    | job-shop, scheduling, order, job, preempt, resource, machine  | single machine, parallel machine | noOverlap                          |                | OZ, Gurobi                      | energy-price                      |            | github, random instance, generated instance |                            | 71  | 683 |
| BeniniBGM06 [77]     | 15    | activity, task, distributed, tardiness, precedence, scheduling, make-span, resource, order, setup-time  |                                  | cycle, cumulative                  |                | ECLiPSe, Cplex, Ilog Solver, OZ | automotive, pipeline              |            | real-life                                   |                            | 227 | 839 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                 | Pages | Concepts   | Classification                    | Constraints                    | Prog Languages | CP Systems                       | Areas        | Industries                                   | Benchmarks   | Algorithm           | a   | c   |
|----------------------|-------|--|-----------------------------------|--------------------------------|----------------|----------------------------------|--------------|--|--|---------------------|-----|-----|
| BertholdHLM10 [80]   | 5     | precedence, scheduling, order, completion-time, job, resource, preempt   | psplib, RCPSP                     | disjunctive, cumulative        |                | Cplex, Z3                        |              |  |  |                     | 186 | 798 |
| BessiereHMQW14 [81]  | 16    | scheduling, order, job, resource, setup-time, task, machine  |                                   | alldifferent, cycle            |                | Choco Solver                     | satellite    | textile industry                             | benchmark, real-life   |                     | 134 | 746 |
| BillautHL12 [83]     | 15    | tardiness, precedence, release-date, flow-shop, job-shop, make-span, order, setup-time, job, scheduling, completion-time, due-date, resource, open-shop, machine, cmax | single machine                    | cycle                          |                | Mistral, Cplex                   |              |  | random instance  |                     | 159 | 771 |
| Bit-Monnot23 [84]    | 8     | precedence, scheduling, machine, distributed, order, job, make-span, open-shop, task, lazy clause generation, job-shop, resource, activity                             | Open Shop Scheduling Problem, OSP | cycle, cumulative, disjunctive |                | OR-Tools, MiniZinc, CPO, Mistral |              |  | real-world, github, benchmark  |                     | 2   | 614 |
| BofillCSV17 [90]     | 9     | machine, preempt, cmax, lazy clause generation, precedence, scheduling, make-span, resource, order, activity   | RCPSP, psplib                     | cumulative                     |                | Z3                               |              |  | benchmark  | energetic reasoning | 84  | 696 |
| BofillEGPSV14 [91]   | 16    | order, scheduling, lazy clause generation, machine, task   |                                   |                                |                | Cplex, Gecode, MiniZinc          |              |  | industrial instance  | in- time-tabling    | 135 | 747 |
| BofillGSV15 [92]     | 9     | machine, scheduling, order   |                                   |                                |                | Cplex                            |              |  | industrial instance  | in- time-tabling    | 115 | 727 |
| BogaerdtW19 [504]    | 16    | scheduling, completion-time, order, setup-time, job, machine, job-shop, tardiness, precedence  | single machine, parallel machine  | noOverlap                      | C              | OPL, Cplex                       | railway      |  | benchmark  |                     | 56  | 668 |
| BonfiettiLBM11 [94]  | 15    | scheduling, order, job, resource, make-span, activity, machine, precedence, task, job-shop   | RCPSP                             | cumulative, cycle              |                | Ilog Solver                      | hoist, robot |  | generated instance, industrial instance, benchmark                     |                     | 173 | 785 |
| BonfiettiLBM12 [95]  | 16    | scheduling, order, job, resource, make-span, activity, distributed, machine, precedence, job-shop  | RCPSP                             | cumulative, cycle              |                | Ilog Solver                      | hoist, robot |  | benchmark  | time-tabling        | 160 | 772 |
| BonfiettiLM13 [97]   | 5     | make-span, job-shop, precedence, resource, activity, job, order, scheduling  | RCPSP                             | cumulative, cycle              |                | Cplex                            |              |  |  |                     | 147 | 759 |
| BonfiettiLM14 [98]   | 16    | make-span, machine, task, job-shop, precedence, open-shop, resource, activity, job, distributed, order, scheduling   | RCPSP, psplib                     | cumulative                     |                |                                  |              |  | real-world, benchmark  |                     | 136 | 748 |
| BonfiettiM12 [99]    | 3     | job, task, precedence, job-shop, resource, activity, scheduling, machine   | RCPSP                             | cumulative                     |                |                                  | hoist        |  | industrial instance  |                     | 161 | 773 |
| BonfiettiZLM16 [100] | 17    | resource, make-span, activity, precedence, scheduling, order   | RCPSP                             | cumulative, cycle, disjunctive |                | OR-Tools                         | automotive   | automotive industry, control system industry | generated instance, github, industrial instance, benchmark, real-world | edge-finder, sweep  | 97  | 709 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                  | Pages | Concepts  | Classification                   | Constraints  | Prog Languages | CP Systems                       | Areas              | Industries           | Benchmarks   | Algorithm  | a   | c   |
|-----------------------|-------|---|----------------------------------|--|----------------|----------------------------------|--------------------|----------------------|--|--|-----|-----|
| BoothNB16 [101]       | 17    | distributed, resource, scheduling, task, machine, precedence, order, activity, re-scheduling  |                                  | disjunctive, cumulative, noOverlap                             | C++            | Cplex                            | robot, medical     |                      | real-world   |  | 98  | 710 |
| BoudreaultSLQ22 [104] | 16    | lazy clause generation, order, activity, make-span, machine, scheduling, cmax, transportation, distributed, resource, preempt, precedence, task                           | RCPSP, psplib                    | disjunctive, cumulative  |                | Chuffed, MiniZinc, OR-Tools, OPL | offshore           | ship repair industry | benchmark, generated instance, supplementary material, gitlab, real-life, industrial partner, github, real-world | not-last, energetic reasoning, edge-finding, not-first | 17  | 629 |
| BridiLBBM16 [108]     | 2     | resource, task, machine, distributed, make-span, order, job, activity, scheduling   |                                  |  |                |                                  |                    |                      |  |  | 99  | 711 |
| BrusoniCLMMT96 [110]  | 10    | resource, activity, precedence, task, distributed, due-date, job-shop, scheduling, order, job   |                                  | disjunctive  | Prolog         |                                  | railway            |                      |  |  | 298 | 910 |
| BurtLPS15 [111]       | 17    | task, machine, precedence, order, tardiness, job, job-shop, resource, scheduling, make-span, completion-time  | parallel machine, single machine | cumulative, cycle  |                | Cplex, Gurobi, Gecode, MiniZinc  |                    |                      | real-world, benchmark, industry partner  |  | 116 | 728 |
| CappartS17 [114]      | 16    | machine, activity, job, precedence, re-scheduling, resource, job-shop, scheduling, task, order, completion-time   | TMS                              | cumulative, noOverlap, alternative constraint, span constraint |                | OPL, OZ                          | railway            |                      | bitbucket, random instance, real-life  |  | 85  | 697 |
| CappartTSR18 [115]    | 17    | resource, setup-time, producer/consumer, scheduling, transportation, order, activity  |                                  | cumulative, noOverlap, circuit, disjunctive                    |                | Cplex, MiniZinc, OPL, CPO        | medical, patient   |                      | bitbucket, CSPLib, real-life   |  | 72  | 684 |
| CarchraeBF05 [116]    | 1     | scheduling, order, task, make-span  |                                  |  |                |                                  |                    |                      |  |  | 236 | 848 |
| Caseau97 [120]        | 4     | preempt, make-span, order, scheduling, job, resource, job-shop, task  |                                  | cumulative   |                |                                  | robot              |                      | benchmark  | edge-finding   | 296 | 908 |
| CauwelaertDMS16 [121] | 16    | batch process, task, job, job-shop, order, activity, make-span, machine, scheduling, completion-time, setup-time, resource, sequence dependent setup, preempt, precedence |                                  | cumulative, disjunctive  | Java           |                                  | container terminal |                      | real-life, bitbucket, benchmark  | not-last, edge-finding, not-first                      | 100 | 712 |
| CestaOS98 [124]       | 1     | resource, scheduling, job   |                                  |  |                |                                  | robot              |                      |  |  | 287 | 899 |
| ChapadosJR11 [125]    | 6     | activity, scheduling, order, task   |                                  | cycle, cumulative  |                | OPL                              |                    | retail industry      |  | time-tabling   | 174 | 786 |
| ChuGNSW13 [126]       | 7     | distributed, resource, scheduling, precedence, order, task, machine, job  |                                  | disjunctive, cumulative, alldifferent                          |                | CHIP                             |                    |                      |  | not-first, not-last, edge-finding                      | 148 | 760 |
| ChuX05 [127]          | 15    | scheduling, machine, resource, job, release-date, order, due-date, completion-time  | single machine                   | disjunctive, cumulative  |                | ECLiPSe                          |                    |                      |  |  | 237 | 849 |
| CireCH13 [128]        | 7     | make-span, tardiness, scheduling, machine, job, resource, precedence, task, order   |                                  | circuit, cumulative  |                | OPL, Cplex, OZ                   |                    |                      |  |  | 149 | 761 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                  | Pages | Concepts  | Classification | Constraints                       | Prog Languages | CP Systems                         | Areas              | Industries     | Benchmarks   | Algorithm  | a   | c   |
|-----------------------|-------|---|----------------|-----------------------------------|----------------|------------------------------------|--------------------|----------------|--|--|-----|-----|
| ClercqPBJ11 [129]     | 16    | resource, order, activity, due-date, release-date, distributed, precedence, scheduling, completion-time   |                | alldifferent, cumulative          | Java           | CHIP, Choco Solver                 |                    |                | benchmark  | time-tabling, sweep, energetic reasoning, edge-finding | 175 | 787 |
| CobanH10 [130]        | 5     | distributed, tardiness, job, preempt, re-scheduling, make-span, order, scheduling   |                | circuit, disjunctive              |                | OPL, Cplex                         |                    |                |  |  | 187 | 799 |
| CohenHB17 [131]       | 17    | scheduling, task, machine, order, activity  |                | alternative constraint, noOverlap |                | OZ, OPL, Cplex                     |                    |                |  | time-tabling   | 86  | 698 |
| ColT19 [133]          | 17    | earliness, order, scheduling, precedence, make-span, machine, resource, job, job-shop   | JSSP           | noOverlap, disjunctive            | Java           | MiniZinc, CPO, OR-Tools            |                    |                | github, benchmark, real-world                        |  | 57  | 669 |
| Colombani96 [135]     | 15    | job, scheduling, resource, order, task, preempt, activity, due-date, machine, precedence, release-date, job-shop  |                | disjunctive                       |                | CHIP                               |                    |                |  |  | 299 | 911 |
| DannaP03 [137]        | 5     | machine, job, job-shop, activity, earliness, order, tardiness, scheduling, resource   |                | disjunctive                       |                | Cplex, Ilog Solver, Ilog Scheduler |                    |                | benchmark  |  | 265 | 877 |
| Davenport10 [139]     | 5     | resource, release-date, tardiness, scheduling, completion-time, order, earliness, due-date  |                |                                   |                | Cplex                              | semiconductor      |                |  |  | 188 | 800 |
| DavenportKRSH07 [140] | 13    | make to order, activity, machine, sequence dependent setup, preempt, precedence, resource, inventory, job-shop, order, scheduling, job, setup-time                                  |                | disjunctive, bin-packing          | C++            | Cplex, CHIP                        |                    | steel industry |  |  | 216 | 828 |
| DejemeppeCS15 [147]   | 16    | completion-time, tardiness, job-shop, scheduling, sequence dependent setup, make-span, machine, release-date, task, precedence, setup-time, job, resource, order, preempt, activity | single machine | disjunctive, cumulative, cycle    |                |                                    | container terminal |                | real-world, bitbucket, generated instance, benchmark | not-last, not-first, edge-finding                      | 117 | 729 |
| DejemeppeD14 [148]    | 9     | make-span, precedence, job-shop, resource, activity, setup-time, scheduling, order, job   |                | cumulative                        |                |                                    | medical, patient   |                | bitbucket  |  | 137 | 749 |
| DemirovicS18 [150]    | 18    | scheduling, order, task, resource, activity, precedence   |                | cumulative, disjunctive           |                | MiniZinc, Gurobi, OZ               |                    |                | real-world, benchmark                                | time-tabling   | 73  | 685 |
| DerrienP14 [152]      | 9     | resource, scheduling, activity, order, make-span  | psplib, CuSP   | cumulative                        | Java           | Choco Solver                       |                    |                | random instance                                      | sweep, edge-finding, energetic reasoning               | 138 | 750 |
| DerrienPZ14 [153]     | 9     | re-scheduling, make-span, scheduling, resource, order, job, activity, machine, precedence   | RCPSP, CuSP    | cumulative                        |                | Choco Solver, CHIP                 |                    |                | benchmark, random instance, real-world               | sweep  | 139 | 751 |
| DilkinaDH05 [155]     | 5     | machine, precedence, job-shop, make-span, job, scheduling, order  |                |                                   |                | OPL                                |                    |                |  |  | 238 | 850 |



Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts  | Classification   | Constraints                               | Prog Languages | CP Systems                  | Areas  | Industries        | Benchmarks   | Algorithm    | a   | c   |
|---------------------|-------|---|------------------|---|----------------|-----------------------------|--|-------------------|--|--------------|-----|-----|
| DoomsH08 [157]      | 16    | scheduling, resource, completion-time, machine, job, job-shop, activity, task, order  | RCPSP            |   |                |                             |  | services industry |  |              | 207 | 819 |
| DoulabiRP14 [158]   | 9     | activity, scheduling, due-date, resource, task, order   |                  | bin-packing                               |                | Cplex                       | surgery, nurse, operating room, medical, patient               |                   |  |              | 140 | 752 |
| EdisO11 [160]       | 7     | task, job, completion-time, activity, lateness, earliness, resource, make-span, scheduling, flow-time, preempt, tardiness, due-date, machine                                      | parallel machine | bin-packing, noOverlap, cumulative        |                | OPL, Cplex                  |  |                   |  |              | 176 | 788 |
| EfthymiouY23 [161]  | 16    | order, job, make-span, re-scheduling, task, job-shop, scheduling, machine, setup-time   | CHSP, JSSP       | cumulative, disjunctive, cycle            | Python         | OPL, OR-Tools               | pipeline, hoist, electroplating, satellite                     |                   | benchmark, random instance, generated instance, real-life, industrial instance |              | 3   | 615 |
| ElkhyariGJ02 [162]  | 6     | resource, activity, precedence, scheduling, machine, due-date, preempt, make-span, re-scheduling, task  | RCPSP            | cumulative, disjunctive, table constraint |                |                             |  |                   |  |              | 274 | 886 |
| ElkhyariGJ02a [163] | 24    | activity, re-scheduling, order, due-date, scheduling, task, precedence, open-shop, resource   | RCPSP, psplib    | cumulative, disjunctive                   |                | OZ, OPL                     |  |                   | benchmark, real-life   | time-tabling | 275 | 887 |
| ErtlK91 [164]       | 12    | setup-time, resource, scheduling, order, machine, task  |                  | cycle                                     | Prolog         |                             | pipeline   |                   | real-world, benchmark  |              | 310 | 922 |
| EvenSH15 [166]      | 18    | preempt, transportation, order, scheduling, machine, distributed, resource, completion-time, task   |                  | disjunctive, cumulative                   |                | OPL, Choco Solver           | emergency service  |                   | real-life, real-world  | sweep        | 118 | 730 |
| FocacciLN00 [175]   | 10    | due-date, task, machine, preempt, job-shop, distributed, cmax, precedence, scheduling, make-span, sequence dependent setup, resource, open-shop, order, setup-time, job, activity |                  | disjunctive                               |                |                             |  |                   | real-world   | edge-finding | 285 | 897 |
| FontaineMH16 [176]  | 11    | order, machine, job, task, completion-time, make-span, job-shop, resource, precedence, scheduling   | parallel machine | disjunctive                               |                | MiniZinc, Gurobi, CHIP      |  |                   | benchmark  |              | 101 | 713 |
| FortinZDF05 [177]   | 15    | resource, order, task, activity, temporal constraint reasoning, precedence, make-span, scheduling   | psplib           |   |                |                             |  |                   |  |              | 239 | 851 |
| FrankK05 [178]      | 18    | order, scheduling, job, resource, due-date, task, precedence  |                  | cycle                                     |                |                             | satellite, aircraft  |                   | benchmark  |              | 240 | 852 |
| FrimodigS19 [180]   | 17    | resource, order, task, machine, job-shop, job, scheduling   |                  | regular presson, cumulative, bin-packing  | ex- Python     | Gecode, Cplex, MiniZinc, OZ | radiation therapy, surgery, medical, patient, nurse, physician |                   | benchmark, real-world  |              | 58  | 670 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                    | Pages | Concepts  | Classification     | Constraints   | Prog Languages | CP Systems                                | Areas                                     | Industries              | Benchmarks   | Algorithm   | a   | c   |
|-------------------------|-------|---|--------------------|---|----------------|---|---|-------------------------|--|---|-----|-----|
| FrohnerTR19 [181]       | 9     | scheduling, order, distributed  |                    |   | Java, Python   | MiniZinc, Gecode, Gurobi                  | nurse                                     |                         | benchmark, real-world  |   | 59  | 671 |
| FrostD98 [182]          | 1     | order, scheduling   |                    |   |                |   |   | power industry          |  |   | 288 | 900 |
| GalleguillosKSB19 [183] | 18    | re-scheduling, machine, distributed, resource, order, activity, job, scheduling, make-span  | JSSP               | cumulative, alternative constraint                            | Python         | OR-Tools, OZ                              | super-computer, datacenter                |                         |  |   | 60  | 672 |
| GarganiR07 [184]        | 13    | order, machine, resource, inventory   |                    | bin-packing   | C++            | OPL                                       | steel mill                                | steel industry          | real-life, CSPlib  |   | 217 | 829 |
| GayHLS15 [187]          | 9     | precedence, task, order, make-span, resource, scheduling, activity  | OSP, psplib, RCPSP | cumulative, disjunctive                                       |                |   |   |                         | benchmark, bitbucket   | edge-finding, time-tabling  | 119 | 731 |
| GayHS15 [188]           | 9     | scheduling, precedence, resource, preempt, task, order  |                    | cumulative, table constraint, disjunctive                     |                | Choco Solver, OR-Tools, Gecode            |   |                         | bitbucket  | time-tabling, sweep   | 120 | 732 |
| GayHS15a [189]          | 16    | manpower, task, order, preempt, resource, scheduling, machine   | psplib, RCPSP      | cumulative, disjunctive                                       | Java           |   |   |                         | benchmark, bitbucket, real-world   | time-tabling, not-first, not-last, energetic reasoning, edge-finding, sweep | 121 | 733 |
| GaySS14 [190]           | 15    | machine, job, completion-time, activity, order, setup-time, make-span, scheduling, precedence, manpower, continuous-process, resource, job-shop   |                    | cycle, cumulative, disjunctive                                |                |   | steel mill                                |                         | real-life, CSPlib  | sweep   | 142 | 754 |
| GeibingerKKMMW21 [192]  | 10    | distributed, scheduling   |                    |   |                | MiniZinc, OR-Tools, Gurobi, Cplex, Gecode | nurse, physician, COVID, medical, patient | pharmaceutical industry | real-world   |   | 37  | 649 |
| GeibingerMM19 [194]     | 16    | precedence, release-date, resource, activity, re-scheduling, job, order, due-date, completion-time, scheduling, make-span, task                   | RCPSP              | alternative constraint, noOverlap, cumulative, endBeforeStart | Java           | CPO, Cplex, Gecode, MiniZinc              | automotive                                |                         | real-life, generated instance, industrial partner, real-world, benchmark | time-tabling  | 61  | 673 |
| GeibingerMM21 [195]     | 9     | lazy clause generation, precedence, release-date, resource, activity, job, order, due-date, completion-time, tardiness, scheduling, machine, task | RCPSP              | disjunctive, cumulative                                       |                | CPO, Chuffed, Cplex                       | nurse, operating room                     |                         | real-life, github, generated instance, real-world, benchmark             | time-tabling  | 38  | 650 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts   | Classification                         | Constraints  | Prog Languages | CP Systems                      | Areas     | Industries   | Benchmarks                                       | Algorithm   | a   | c   |
|---------------------|-------|--|--|--|----------------|---------------------------------|-----------|--|--|---|-----|-----|
| GeitzGSSW22 [196]   | 18    | make-span, order, setup-time, job, scheduling, completion-time, sequence dependent setup, resource, task, machine, preempt, producer/consumer, lateness, lazy clause generation, precedence, job-shop, batch process, transportation | single machine, RCPSP, JSSP            | cumulative   |                | OZ, OPL                         | robot     |  | real-life, github, real-world                    | not-last, sweep                                       | 18  | 630 |
| GelainPRVW17 [197]  | 16    | resource, scheduling, order  |  |  |                |                                 |           |  | CSPlib, real-life, benchmark                     |   | 87  | 699 |
| Geske05 [198]       | 18    | machine, task, re-scheduling, job, activity, order, distributed, resource, scheduling, lateness, job-shop  |  | cumulative   | Prolog         | CHIP, SIC-Stubus                | railway   |  | real-life  |   | 241 | 853 |
| GilesH16 [199]      | 16    | inventory, setup-time, activity, task, transportation, order, scheduling, resource   |  | cumulative, disjunctive                            |                | Cplex                           | pipeline  | petro-chemical industry, chemical processing industry, chemical industry |  |   | 102 | 714 |
| GingrasQ16 [200]    | 7     | resource, scheduling, task, order, make-span, completion-time, precedence  | psplib, CuSP, RCPSP                    | disjunctive, cumulative                            |                | Choco Solver                    |           |  | benchmark  | sweep, edge-finder, edge-finding, energetic reasoning | 103 | 715 |
| GodardLN05 [201]    | 9     | scheduling, activity, order, completion-time, earliness, machine, make-span, job, precedence, tardiness, resource, job-shop  | JSSP                                   | table constraint, cumulative, disjunctive          |                | OZ, Ilog Scheduler, Ilog Solver |           |  | benchmark  |   | 242 | 854 |
| GodetLHS20 [203]    | 8     | lazy clause generation, setup-time, release-date, scheduling, task, order, machine, make-span, cmax, completion-time, resource, job  | parallel machine, PMSP, single machine | alldifferent, bin-packing, cumulative, disjunctive |                | OZ, Choco Solver, CHIP, Chuffed | satellite |  | github, real-life, benchmark, generated instance | not-last, time-tabling                                | 46  | 658 |
| GoldwasserS17 [206] | 16    | scheduling, machine, transportation, due-date, order, lazy clause generation, resource   |  | cumulative, disjunctive                            | Python         | Gurobi, Gecode                  | torpedo   | steel industry   | instance generator, github, generated instance   |   | 88  | 700 |
| Goltz95 [208]       | 14    | due-date, machine, task, job, completion-time, order, resource, scheduling, precedence, job-shop   |  | cumulative, disjunctive                            | Prolog         | CHIP                            |           |  | benchmark  | edge-finding  | 301 | 913 |
| GomesHS06 [209]     | 2     | scheduling, distributed, task, multi-agent, order  |  |  |                | Ilog Solver                     |           |  | real-life  |   | 228 | 840 |
| GrimesH10 [210]     | 15    | cmax, machine, job, setup-time, job-shop, flow-shop, sequence dependent setup, open-shop, task, batch process, resource, scheduling, make-span, precedence, order  | Open Shop Scheduling Problem           | disjunctive, cumulative, cycle                     |                | OZ                              |           | steel industry   | benchmark  | time-tabling, edge-finding                            | 189 | 801 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                  | Pages | Concepts  | Classification                    | Constraints                               | Prog Languages | CP Systems                                  | Areas                           | Industries    | Benchmarks                                  | Algorithm                               | a   | c   |
|-----------------------|-------|---|-----------------------------------|---|----------------|---|---------------------------------|---------------|---|---|-----|-----|
| GrimesH11 [211]       | 17    | cmax, completion-time, machine, tardiness, job, release-date, earliness, lazy clause generation, job-shop, flow-shop, open-shop, task, due-date, resource, scheduling, make-span, precedence, order | RCPSP                             | disjunctive, cumulative                   |                | Cplex, Ilog Scheduler, Ilog Solver, OZ, OPL |                                 |               | benchmark                                   | edge-finding                            | 177 | 789 |
| GrimesHM09 [213]      | 9     | make-span, resource, job, precedence, open-shop, scheduling, task, order, job-shop, machine   | Open Shop Scheduling Problem, OSP | disjunctive                               | Java           | Choco Solver, Ilog Scheduler, Mistral       |                                 |               | benchmark                                   | not-last, edge-finding                  | 197 | 809 |
| GroleazNS20 [216]     | 17    | tardiness, precedence, release-date, job-shop, setup-time, job, scheduling, resource, order, machine, inventory, preempt, due-date  | GCSP                              | noOverlap, cycle, cumulative, circuit     |                | CPO, OR-Tools                               |                                 | food industry | benchmark, industrial instance              |   | 47  | 659 |
| GroleazNS20a [215]    | 9     | scheduling, machine, inventory, transportation, due-date, distributed, order, tardiness, job, release-date, precedence, resource, setup-time, preempt   | parallel machine, RCPSP           | cycle, noOverlap, cumulative              |                | Cplex, CPO                                  |                                 | food industry | industrial partner, benchmark               |   | 48  | 660 |
| GruianK98 [217]       | 8     | task, resource, scheduling, order, activity, re-scheduling  |                                   | cumulative, cycle, diffn, circuit         |                | OPL, CHIP                                   | pipeline, aircraft              |               | benchmark                                   |   | 289 | 901 |
| GuSS13 [218]          | 7     | lazy clause generation, activity, order, distributed, scheduling, precedence, make-span, machine, resource  | single machine                    | cumulative                                |                |   |                                 |               | benchmark                                   | edge-finding, edge-finder, time-tabling | 150 | 762 |
| GuSW12 [219]          | 15    | lazy clause generation, activity, order, preempt, scheduling, precedence, make-span, cmax, resource, job  |                                   | cumulative                                | C++            |   |                                 |               | benchmark                                   |   | 162 | 774 |
| HananKP21 [225]       | 17    | job-shop, resource, scheduling, make-span, completion-time, task, machine, precedence, order, cmax, tardiness, job, lateness, preempt, release-date, due-date                                       | RCPSP, CuSP, parallel machine     | cumulative                                | Python         | Claire                                      | pipeline                        |               | Roadef, generated instance, random instance | energetic reasoning                     | 39  | 651 |
| He0GLW18 [229]        | 18    | distributed, machine, precedence, re-scheduling, transportation, multi-agent, order, scheduling   |                                   |   | Python         | Gurobi                                      | real-time pricing, energy-price |               | real-world, bit-bucket                      |   | 74  | 686 |
| HebrardALLCMR22 [230] | 7     | activity, order, scheduling   |                                   | cumulative                                | Julia          | OZ, Claire                                  | deep space                      |               |   | sweep                                   | 19  | 631 |
| HebrardTW05 [232]     | 1     | order, job, machine, job-shop, scheduling   |                                   |   |                |   |                                 |               |   |   | 243 | 855 |
| HechingH16 [233]      | 11    | re-scheduling, job, task, order, scheduling, manpower   |                                   | circuit, noOverlap                        |                | OPL, Cplex, OZ                              | patient, medical                |               | real-world                                  |   | 104 | 716 |
| HeinzB12 [235]        | 17    | activity, precedence, release-date, due-date, earliness, order, tardiness, scheduling, resource, completion-time, machine, job  | single machine                    | cycle, cumulative, alternative constraint |                | Cplex, Ilog Solver, Ilog Scheduler, OPL     |                                 |               |   |   | 163 | 775 |
| HeinzKB13 [236]       | 16    | release-date, job-shop, resource, scheduling, order, machine, tardiness, job  | single machine                    | cumulative                                |                | OPL, Cplex                                  |                                 |               |   |   | 151 | 763 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts  | Classification                | Constraints   | Prog Languages | CP Systems                 | Areas                    | Industries | Benchmarks                                | Algorithm                         | a   | c   |
|---------------------|-------|---|-------------------------------|---|----------------|----------------------------|--------------------------|------------|---|-----------------------------------|-----|-----|
| HeinzS11 [238]      | 10    | preempt, order, scheduling, resource, completion-time, machine, job   | psplib, RCPSP                 | disjunctive, cumulative   |                | Cplex                      |                          |            | benchmark                                 | energetic reasoning, time-tabling | 178 | 790 |
| HentenryckM04 [243] | 16    | open-shop, resource, order, activity, job, due-date, completion-time, tardiness, scheduling, make-span, machine, task, job-shop, precedence       |                               | disjunctive, cycle, cumulative  |                |                            |                          |            | benchmark                                 |                                   | 254 | 866 |
| HentenryckM08 [244] | 5     | order   |                               | bin-packing   |                |                            | steel mill               |            | CSPLib                                    |                                   | 208 | 820 |
| HermenierDL11 [245] | 15    | precedence, distributed, resource, order, scheduling, completion-time, producer/consumer, machine, task   |                               | bin-packing, disjunctive, alldifferent, cumulative, cycle, table constraint |                | OZ, Choco Solver           | datacenter               |            |   |                                   | 179 | 791 |
| HillTV21 [246]      | 19    | scheduling, machine, job, resource, activity, flow-shop, release-date, task, precedence, order, preempt, lazy clause generation, make-span        | RCPSP, psplib, single machine | cycle, cumulative, alternative constraint                                   |                |                            |                          |            | real-world                                |                                   | 40  | 652 |
| HoYCLLC18 [247]     | 6     | resource, task, machine, distributed, re-scheduling, order, job, scheduling   |                               |   | C              |                            | nurse, medical, patient  |            | real-world                                |                                   | 75  | 687 |
| HoeveGSL07 [506]    | 6     | re-scheduling, job, precedence, distributed, resource, task, job-shop, multi-agent, scheduling, machine, order                                    |                               | disjunctive   |                | Ilog Scheduler, Cplex      |                          |            | benchmark                                 | edge-finding                      | 218 | 830 |
| Hooker04 [249]      | 12    | machine, task, precedence, release-date, make-span, order, tardiness, scheduling, distributed, resource   |                               | cumulative, circuit, disjunctive  |                | Cplex, OPL, Ilog Scheduler |                          |            | random instance                           |                                   | 255 | 867 |
| Hooker05a [251]     | 14    | release-date, due-date, resource, scheduling, make-span, task, precedence, order, machine, tardiness, job   |                               | circuit, cumulative, disjunctive  |                | OPL, Cplex, Ilog Scheduler |                          |            |   |                                   | 244 | 856 |
| Hooker17 [254]      | 14    | job, due-date, order, tardiness, scheduling, resource   |                               | circuit   |                | OZ                         |                          |            | benchmark, random instance                |                                   | 89  | 701 |
| HookerY02 [258]     | 5     | resource, scheduling, order, machine, job   | RCPSP                         | disjunctive, cumulative   |                |                            |                          |            |   |                                   | 276 | 888 |
| HoundjiSWD14 [259]  | 16    | precedence, resource, scheduling, machine, inventory, transportation, due-date, order   | single machine                | circuit   |                |                            |                          |            | bitbucket, generated instance             |                                   | 143 | 755 |
| IfrimOS12 [261]     | 16    | task, order, machine, job, re-scheduling, distributed, due-date, resource, scheduling   |                               | disjunctive   |                |                            | datacenter, energy-price |            | real-life                                 |                                   | 164 | 776 |
| JelinekB16 [265]    | 10    | scheduling, task, order, completion-time  |                               | table constraint, cumulative  | Prolog         | OZ, SICS-tus, OPL          |                          |            | real-life                                 |                                   | 105 | 717 |
| JungblutK22 [267]   | 4     | distributed, machine, make-span, scheduling, resource, order, task, preempt   |                               | circuit   |                | MiniZinc                   |                          |            | benchmark, github, real-world             |                                   | 20  | 632 |
| JuvinHHL23 [268]    | 16    | cmax, resource, job, setup-time, scheduling, task, order, job-shop, due-date, machine, preempt, make-span, flow-shop, completion-time, precedence | JSSP, parallel machine        | endBeforeStart, disjunctive, alldifferent, cumulative, noOverlap            | C++            | CPO, Mistral               |                          |            | supplementary material, github, benchmark | not-last, edge-finding, not-first | 4   | 616 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                 | Pages | Concepts  | Classification   | Constraints                | Prog Languages | CP Systems          | Areas                                       | Industries | Benchmarks            | Algorithm  | a   | c   |
|----------------------|-------|---|--|----------------------------|----------------|---------------------|---|------------|-----------------------|--|-----|-----|
| JuvinHL23 [269]      | 16    | make-span, completion-time, task, precedence, order, cmax, machine, tardiness, job, setup-time, job-shop, flow-shop, scheduling                             |  | noOverlap, end-BeforeStart |                | Cplex, CPO          |   |            | real-world            |  | 5   | 617 |
| KamarainenS02 [270]  | 17    | machine, job-shop, resource, precedence, transportation, earliness, activity, job, order, preempt, scheduling   | KRFP   |                            |                | ECLiPSe             |   |            | real-world, benchmark |  | 277 | 889 |
| KameugneFGOQ18 [272] | 17    | resource, task, cmax, precedence, make-span, scheduling, order, completion-time   | RCPSP, CuSP  | cumulative, disjunctive    | Java           | CHIP, Choco Solver  |   |            | benchmark, real-world | time-tabling, not-first, sweep, not-last, energetic reasoning                            | 76  | 688 |
| KameugneFND23 [273]  | 17    | machine, resource, precedence, cmax, order, preempt, scheduling, make-span, completion-time, task, lazy clause generation                                   | psplib, CuSP, RCPSP  | disjunctive, cumulative    | Java           | CHIP, Choco Solver  |   |            | benchmark             | sweep, energetic reasoning, edge-finding, not-last, not-first, edge-finder, time-tabling | 6   | 618 |
| KameugneFSN11 [274]  | 15    | job-shop, release-date, resource, precedence, job, order, preempt, scheduling, make-span, completion-time, task   | RCPSP, psplib, CuSP  | disjunctive, cumulative    |                | Gecode              |   |            | benchmark             | edge-finding, not-last, not-first, time-tabling  | 180 | 792 |
| KelarevaTK13 [277]   | 17    | order, tardiness, make-span, re-scheduling, task, resource, lazy clause generation, activity, precedence, scheduling, inventory, transportation, setup-time | Liner Shipping Fleet Repositioning Problem, BPCTOP, LSFRP, Bulk Port Cargo Throughput Optimisation Problem | alldifferent               |                | Cplex, MiniZinc, OZ | earth observation, shipping line, satellite |            | real-world            |  | 152 | 764 |
| KeriK07 [279]        | 14    | due-date, tardiness, temporal constraint reasoning, job, activity, order, earliness, make-span, scheduling, precedence, cmax, resource, job-shop            | RCPSP  | cycle                      | C++            |                     |   |            |                       | edge-finding   | 219 | 831 |
| KhemmoudjPB06 [281]  | 13    | resource, stock level, distributed, order, scheduling   |  | cycle, cumulative          | C++            | CHIP                |   |            | real-world            |  | 229 | 841 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts  | Classification                   | Constraints                                 | Prog Languages | CP Systems                     | Areas                        | Industries               | Benchmarks  | Algorithm    | a   | c   |
|---------------------|-------|---|----------------------------------|---|----------------|--------------------------------|------------------------------|--------------------------|---|--------------|-----|-----|
| KimCMLLP23 [282]    | 16    | make-span, job, precedence, open-shop, distributed, tardiness, setup-time, earliness, job-shop, due-date, scheduling, order, transportation, machine                | parallel machine, SCC            | noOverlap                                   | Python         | Gurobi, OR-Tools               |                              | steel industry           | real-world, benchmark, zenodo                         |              | 7   | 619 |
| KlankeBYE21 [283]   | 16    | re-scheduling, make-span, order, job, activity, scheduling, completion-time, due-date, resource, task, machine, producer/consumer, job-shop, batch process          |                                  | noOverlap, disjunctive, cumulative, circuit | Python         | Gurobi, Cplex, CHIP, OR-Tools  |                              | food-processing industry | benchmark, random instance, real-life                 |              | 41  | 653 |
| KletzanderM17 [284] | 15    | scheduling, machine, resource, transportation, order  | parallel machine                 |   |                | OZ                             | torpedo                      | steel industry           |   |              | 90  | 702 |
| KorbaaYG99 [287]    | 8     | job, resource, task, job-shop, scheduling, machine, flow-shop, order, transportation, make-span   |                                  | cycle, circuit                              | Prolog         | CHIP, Ilog Solver, OZ          | robot, hoist                 |                          |   |              | 286 | 898 |
| KoschB14 [289]      | 16    | resource, completion-time, batch process, lateness, job-shop, release-date, due-date, multi-agent, order, cmax, make-span, scheduling, machine, distributed, job    | single machine, RCPSP            | cumulative, bin-packing, disjunctive        | Java           | Choco Solver, Cplex, OZ        | semiconductor                |                          | benchmark   |              | 144 | 756 |
| KovacsB07 [290]     | 15    | order, tardiness, job, activity, preempt, release-date, earliness, due-date, job-shop, flow-shop, resource, scheduling, make-span, completion-time, machine         | parallel machine, single machine | cumulative                                  | C++            | Ilog Solver                    |                              |                          | benchmark   |              | 220 | 832 |
| KovacsEKV05 [293]   | 1     | scheduling, resource, setup-time, job, job-shop, precedence   |                                  |   |                |                                |                              |                          | real-life   |              | 245 | 857 |
| KovacsTKSG21 [297]  | 17    | resource, precedence, job-shop, due-date, preempt, scheduling, order, machine, tardiness, flow-shop, job, inventory, re-scheduling, task, distributed, release-date | RCPSP, single machine            | cumulative                                  |                | Gurobi, OR-Tools, Cplex        |                              |                          | github, supplementary material, real-world, benchmark |              | 42  | 654 |
| KovacsV04 [295]     | 15    | job, job-shop, resource, scheduling, make-span, task, machine, precedence, order  | single machine                   | disjunctive, cumulative                     |                | Ilog Scheduler                 |                              |                          | industrial partner, benchmark, real-life              | edge-finding | 256 | 868 |
| KovacsV06 [296]     | 13    | tardiness, job, setup-time, earliness, job-shop, resource, scheduling, make-span, task, machine, precedence, order  | RCPSP, single machine            | cumulative                                  |                | Ilog Scheduler                 | automotive                   |                          | industrial partner, benchmark, generated instance     |              | 230 | 842 |
| KreterSS15 [298]    | 17    | scheduling, task, order, machine, preempt, activity, make-span, completion-time, resource, lazy clause generation   | RCPSP, parallel machine          | cumulative, diffn                           |                | Cplex, MiniZinc, CHIP, Chuffed |                              |                          | benchmark   |              | 122 | 734 |
| KrogtLPHJ07 [505]   | 13    | resource, order, job, inventory, activity, due-date, machine, job-shop, precedence, scheduling  |                                  | circuit                                     | Prolog         | OPL                            | semiconductor aircraft       |                          | real-world  |              | 221 | 833 |
| KucukY19 [304]      | 5     | order, scheduling, distributed, resource, setup-time, sequence dependent setup, task  |                                  | disjunctive, cycle, noOverlap               |                | Cplex                          | satellite, earth observation |                          | benchmark, generated instance                         | time-tabling | 62  | 674 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts  | Classification                        | Constraints  | Prog Languages | CP Systems   | Areas                                 | Industries   | Benchmarks  | Algorithm                                | a   | c   |
|---------------------|-------|---|---------------------------------------|--|----------------|--|---------------------------------------|--|---|--|-----|-----|
| Kumar03 [303]       | 15    | activity, order, scheduling, producer/consumer, resource  |                                       | cycle  |                |  |                                       |  |   | bi-partite matching, max-flow            | 266 | 878 |
| Laborie09 [306]     | 15    | task, precedence, order, machine, tardiness, job, activity, setup-time, release-date, inventory, earliness, sequence dependent setup, due-date, preempt, job-shop, resource, scheduling |                                       | noOverlap, endBeforeStart, alternative constraint, cumulative, disjunctive | C              | OPL, CPO, OZ   | aircraft, satellite                   |  | real-world, benchmark   |  | 198 | 810 |
| Laborie18a [307]    | 9     | resource, job, release-date, scheduling, task, due-date, machine, precedence  |                                       | cumulative, alternative constraint   |                | Ilog Scheduler, CPO, OPL                                 |                                       |  | real-life, benchmark, real-world  | energetic reasoning                      | 77  | 689 |
| LacknerMMWW21 [309] | 18    | release-date, flow-shop, batch process, setup-time, job, order, due-date, tardiness, scheduling, make-span, machine, task, lateness, earliness  | parallel machine, OSP, single machine | noOverlap, cumulative, end-BeforeStart                                     |                | Chuffed, Cplex, OPL, CPO, OZ, OR-Tools, MiniZinc, Gurobi | semiconductor oven scheduling         | electronics industry, steel industry, manufacturing industry | random instance, industrial partner, benchmark, instance generator, real-life, supplementary material |  | 43  | 655 |
| LahimerLH11 [311]   | 14    | resource, task, machine, preempt, cmax, precedence, make-span, order, job, scheduling, completion-time  | parallel machine, RCPSP               | disjunctive  | C++            | Ilog Scheduler   |                                       |  | benchmark   | energetic reasoning                      | 181 | 793 |
| LauLN08 [313]       | 5     | order, distributed, inventory, resource, scheduling, flow-shop, transportation, job-shop, machine, job  |                                       |  |                |  |                                       |  | benchmark, real-world   |  | 209 | 821 |
| LetortBC12 [316]    | 16    | order, machine, make-span, precedence, resource, scheduling, task   | psplib                                | cumulative, geost, bin-packing   | Java, Prolog   | Choco Solver, CHIP, SICStus                              | datacenter                            |  | Roadef, benchmark, random instance  | sweep, edge-finding                      | 165 | 777 |
| LetortCB13 [317]    | 16    | machine, make-span, precedence, resource, scheduling, task, order   | psplib, RCPSP                         | cumulative, disjunctive, bin-packing                                       | Java, Prolog   | Choco Solver, SICStus                                    |                                       |  | Roadef, benchmark, random instance  | energetic reasoning, sweep, edge-finding | 153 | 765 |
| LiFJZLL22 [319]     | 6     | task, machine, tardiness, job, buffer-capacity, flow-time, setup-time, distributed, job-shop, batch process, transportation, flow-shop, scheduling, make-span, order, completion-time   | single machine                        |  |                | OZ, OPL  | robot                                 |  | benchmark   |  | 21  | 633 |
| LimBTBB15 [323]     | 15    | job-shop, scheduling, multi-agent, order, machine, tardiness, job, re-scheduling, earliness   |                                       |  |                | OPL  | HVAC                                  |  | benchmark   | time-tabling                             | 123 | 735 |
| LimHTB16 [322]      | 18    | machine, activity, re-scheduling, multi-agent, order, scheduling, distributed   |                                       | cumulative   |                | OPL  | real-time pricing, HVAC, energy-price |  | real-world  |  | 106 | 718 |
| LimRX04 [321]       | 5     | scheduling, preempt, machine, job, completion-time, order, transportation   |                                       |  |                | OZ   | container terminal                    |  | generated instance  |  | 257 | 869 |



Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                   | Pages | Concepts   | Classification      | Constraints                              | Prog Languages | CP Systems              | Areas                                      | Industries       | Benchmarks   | Algorithm           | a   | c   |
|------------------------|-------|--|---------------------|--|----------------|-------------------------|--|------------------|--|---------------------|-----|-----|
| Limtanyakul07 [324]    | 6     | make-span, task, machine, release-date, resource, precedence, job, order, scheduling, due-date                           |                     | cumulative                               |                | OPL                     | robot                                      |                  | real-life  | energetic reasoning | 222 | 834 |
| LipovetzkyBPS14 [326]  | 9     | scheduling, resource, precedence, task, order, transportation, make-span   |                     | disjunctive                              |                | Cplex                   | crew-scheduling                            |                  | industrial partner, real-life, industry partner, real-world, benchmark, generated instance |                     | 145 | 757 |
| LiuCGM17 [328]         | 17    | transportation, order, cmax, scheduling, machine, task, activity   |                     |  | Python         | OR-Tools, OPL, MiniZinc |  | tourism industry | github   |                     | 91  | 703 |
| LiuJ06 [329]           | 5     | make-span, task, order, scheduling, resource   |                     | cycle, disjunctive                       |                |                         |  |                  |  |                     | 231 | 843 |
| LiuLH19 [327]          | 9     | order, resource, scheduling  |                     |  |                | Choco Solver, OZ        |  |                  | CSPLib, benchmark  | time-tabling        | 63  | 675 |
| LombardiBM15 [331]     | 16    | completion-time, job-shop, resource, activity, precedence, scheduling, machine, distributed, order, job, make-span, task | JSSP, RCPSP, psplib |  |                |                         |  |                  | benchmark, real-world  |                     | 124 | 736 |
| LombardiBMB11 [332]    | 17    | resource, order, activity, completion-time, scheduling, make-span, machine, task, precedence                             | RCPSP               | cycle, cumulative                        | C++            |                         | hoist                                      |                  | benchmark, industrial instance, real-life  |                     | 182 | 794 |
| LombardiM09 [333]      | 15    | precedence, completion-time, make-span, order, activity, scheduling, resource, task, preempt                             | RCPSP               |  |                | Ilog Solver             |  |                  | real-world, instance generator   |                     | 199 | 811 |
| LombardiM10 [335]      | 15    | precedence, completion-time, make-span, order, activity, scheduling, resource, task                                      | RCPSP               | disjunctive, cumulative                  |                | Ilog Solver             |  |                  | real-world, benchmark  |                     | 190 | 802 |
| LombardiM13 [338]      | 2     | precedence, make-span, order, activity, scheduling, resource, task   | RCPSP, psplib       |  |                |                         |  |                  |  |                     | 154 | 766 |
| LuoB22 [346]           | 17    | order, scheduling, resource, re-scheduling, machine, batch process, job, job-shop  |                     | diffn, bin-packing, alwaysIn, cumulative | Python         | CHIP, Cplex             | super-computer, railway, rectangle-packing |                  | generated instance, github, real-life, real-world, industry partner, industrial instance   |                     | 22  | 634 |
| LuoVLBM16 [345]        | 4     | task, machine, precedence, order, job, activity, job-shop, resource, scheduling  |                     |  |                |                         | nurse                                      |                  |  | time-tabling        | 107 | 719 |
| Madi-WambaB16 [347]    | 16    | precedence, job, order, scheduling, task, resource   |                     | cumulative                               | Java           | Choco Solver, CHIP      |  |                  | real-world, benchmark, random instance, generated instance                                 |                     | 108 | 720 |
| Madi-WambaLOBM17 [348] | 8     | machine, task, activity, re-scheduling, job, precedence, distributed, scheduling, order, resource                        |                     | bin-packing, cumulative                  | Prolog         | SICStus                 | datacenter                                 |                  | real-world   | sweep               | 92  | 704 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                       | Pages | Concepts   | Classification                              | Constraints   | Prog Languages | CP Systems                      | Areas                    | Industries                               | Benchmarks   | Algorithm                         | a   | c   |
|----------------------------|-------|--|---|---|----------------|---------------------------------|--------------------------|--|--|-----------------------------------|-----|-----|
| MakMS10 [349]              | 5     | scheduling, due-date, order, machine, inventory, task, job, activity, transportation, precedence, resource   |   | cycle   |                |                                 |                          |  |  |                                   | 191 | 803 |
| MalapertN19 [351]          | 17    | make-span, scheduling, completion-time, sequence dependent setup, resource, order, setup-time, job, flow-time, task, machine, cmax   | parallel machine, PMSP, PTC, single machine | noOverlap, alwaysIn, cumulative, alternative constraint         |                | Cplex, CPO                      | semiconductor            |  | generated instance, benchmark, industrial instance, Roadeff                            |                                   | 64  | 676 |
| MaraveliasG04 [354]        | 20    |  |   |   |                | OZ                              |                          |  |  |                                   | 258 | 870 |
| Mehdizadeh-Somarin23 [357] | 14    | multi-agent, job-shop, completion-time, re-scheduling, tardiness, machine, scheduling, cmax, flow-shop, job, task, setup-time, precedence, order, make-span, preempt   | parallel machine, JSSP, single machine      |   | Python         | Cplex, OZ                       | robot, COVID             |  | random instance  |                                   | 8   | 620 |
| MelgarejoLS15 [8]          | 17    | tardiness, scheduling, machine, task, precedence, transportation, setup-time, resource, order, job   | single machine                              | circuit, disjunctive, alldifferent, noOverlap, table constraint |                | OZ, Cplex                       |                          |  | real-world, benchmark  |                                   | 125 | 737 |
| Mercier-AubinGQ20 [362]    | 13    | job, preempt, task, make-span, sequence dependent setup, setup-time, tardiness, precedence, resource, earliness, completion-time, machine, lazy clause generation, activity, job-shop, due-date, scheduling, order | RCPSPP                                      | cycle, circuit, cumulative, disjunctive                         | C++, Python    | OPL, MiniZinc                   |                          | textile industry, manufacturing industry | industrial instance, industrial partner  |                                   | 49  | 661 |
| MoffittPP05 [363]          | 6     | scheduling, resource, order, activity, machine, cmax, make-span  | Temporal Constraint Satisfaction Problem    | cycle, disjunctive  |                |                                 |                          |  |  |                                   | 246 | 858 |
| MonetteDD07 [365]          | 14    | precedence, job-shop, make-span, job, scheduling, completion-time, resource, open-shop, order, preempt, no preempt, task, machine  | Open Shop Scheduling Problem, OSP           | disjunctive   |                | Gecode                          |                          |  | benchmark  | not-last, not-first, edge-finding | 223 | 835 |
| MonetteDH09 [366]          | 8     | precedence, release-date, job-shop, tardiness, make-span, job, scheduling, completion-time, resource, order, preempt, activity, earliness, distributed, due-date, task, machine                                    |   | cycle, disjunctive, cumulative                                  |                |                                 |                          |  | benchmark  | not-last                          | 200 | 812 |
| MossigeGSMC17 [369]        | 18    | activity, job, distributed, order, completion-time, preempt, scheduling, make-span, machine, task, job-shop, resource, precedence  | FJS, single machine, RCPSP                  | cumulative, cycle, disjunctive                                  | Prolog         | SICStus, CHIP                   | rectangle-packing, robot |  | industrial partner, real-world, benchmark, random instance, CSPLib, generated instance |                                   | 93  | 705 |
| MouraSCL08 [371]           | 16    | scheduling, preempt, activity, order, transportation, inventory, precedence, distributed, resource   |   | table constraint, disjunctive, cycle                            | C++            | Ilog Solver, OZ, Ilog Scheduler | pipeline                 |  | max-flow   |                                   | 210 | 822 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                    | Pages | Concepts  | Classification                              | Constraints                                       | Prog Languages | CP Systems   | Areas                        | Industries | Benchmarks                               | Algorithm  | a   | c   |
|-------------------------|-------|---|---|---|----------------|--|------------------------------|------------|--|--|-----|-----|
| MouraSCL08a [370]       | 8     | transportation, re-scheduling, order, scheduling, due-date, resource, inventory, distributed  | JSPT  | disjunctive, cumulative                           | C++            | Ilog Solver, Ilog Scheduler  | pipeline                     |            | real-world, benchmark                    |  | 211 | 823 |
| MurinR19 [373]          | 16    | job-shop, task, make-span, transportation, order, resource, scheduling, machine, setup-time, job, activity, completion-time, precedence |   | noOverlap, alternative constraint, endBeforeStart |                | Cplex, OPL   | patient, robot               |            | real-life, benchmark, github             |  | 65  | 677 |
| MurphyMB15 [374]        | 17    | scheduling, task, order, machine, activity, re-scheduling, resource   |   | cycle, circuit, cumulative, disjunctive           | Java           | Choco Solver   |                              |            | real-world                               |  | 126 | 738 |
| Muscettola02 [375]      | 16    | job-shop, resource, activity, precedence, scheduling, order, job, cmax  |   | cycle   |                |  |                              |            |  | edge-finding, max-flow   | 278 | 890 |
| MusliuSS18 [376]        | 17    | distributed, scheduling, activity, manpower, task, order, machine   |   | cycle   |                | Gecode, Gurobi, MiniZinc   | operating room, nurse        |            | generated instance, benchmark, real-life |  | 78  | 690 |
| NattafM20 [381]         | 16    | setup-time, resource, scheduling, make-span, order, completion-time, machine, job, flow-time  | single machine, PMSP, parallel machine, PTC | cumulative, noOverlap                             |                | CPO, Cplex   | semiconductor                |            | benchmark, industrial instance           |  | 50  | 662 |
| NethercoteSBBDT07 [382] | 15    | resource, machine, job-shop, order, job, task   |   |   | C++            | MiniZinc, ECLiPSe, Choco Solver, Ilog Solver, OZ, Gecode, OPL, Cplex |                              |            | CSPLib, benchmark                        |  | 224 | 836 |
| NishikawaSTT18 [384]    | 6     | make-span, order, resource, activity, task, distributed, precedence, scheduling   |   | alternative constraint, endBeforeStart            |                | Cplex, OZ  | pipeline, robot              |            | real-world, benchmark                    |  | 79  | 691 |
| NishikawaSTT18a [385]   | 6     | task, order, activity, make-span, scheduling, distributed, resource, precedence, re-scheduling  |   | endBeforeStart, alternative constraint            |                | OZ, Cplex  | robot, nurse, pipeline       |            | real-world, benchmark, real-life         |  | 80  | 692 |
| NuijtenA94 [392]        | 5     | precedence, resource, job-shop, scheduling, preempt, order, completion-time, machine, make-span, job                                    | JSSP  | disjunctive                                       | C++            | Ilog Solver, CPO   |                              |            |  | time-tabling   | 307 | 919 |
| OddiPCC03 [394]         | 15    | preempt, distributed, resource, scheduling, precedence, order, completion-time, task, machine, activity                                 | single machine                              | cycle   | Java           |  | satellite, earth observation |            | benchmark                                |  | 267 | 879 |
| OuelletQ13 [396]        | 16    | scheduling, task, order, preempt, make-span, completion-time, precedence, resource  | CuSP, RCPSP, psplib                         | cumulative, disjunctive                           |                | Choco Solver   |                              |            | benchmark                                | edge-finding, not-first, edge-finder, energetic reasoning, not-last, time-tabling, sweep | 155 | 767 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts  | Classification                   | Constraints                              | Prog Languages | CP Systems                  | Areas   | Industries                    | Benchmarks  | Algorithm   | a   | c   |
|---------------------|-------|---|----------------------------------|--|----------------|-----------------------------|---|-------------------------------|---|---|-----|-----|
| OuelletQ18 [397]    | 18    | scheduling, task, order, make-span, completion-time, precedence, resource   | RCPSP, pspLib                    | cumulative, dis-junctive                 | Java           | OZ, Choco Solver            |   |                               | benchmark, Roadeff                                    | edge-finding, not-first, energetic reasoning, not-last, time-tabling        | 81  | 693 |
| OuelletQ22 [398]    | 17    | scheduling, task, order, preempt, activity, completion-time, resource, lazy clause generation   |                                  | cumulative, dis-junctive                 | Java           | MiniZinc, Choco Solver      | nurse   |                               | github, benchmark, random instance                    | edge-finding, not-first, energetic reasoning, not-last, time-tabling, sweep | 23  | 635 |
| OujanaAYB22 [399]   | 6     | distributed, due-date, tardiness, make to order, precedence, flow-shop, job-shop, batch process, buffer-capacity, make-span, setup-time, job, scheduling, completion-time, sequence dependent setup, resource, open-shop, order, task, machine, preempt | PMSP, parallel machine, FJS, HFF | span constraint, noOverlap, dis-junctive |                | CPO, OPL                    | COVID, robot  | food industry, steel industry | benchmark, industrial instance, real-world, real-life |   | 24  | 636 |
| ParkUJR19 [405]     | 8     | task, machine, flow-time, order, cmax, tardiness, job, lateness, preempt, no preempt, distributed, due-date, job-shop, flow-shop, resource, scheduling, make-span, open-shop, completion-time   | parallel machine, single machine | endBeforeStart, cycle, noOverlap         |                |                             |   |                               | real-world  |   | 66  | 678 |
| PembertonG98 [406]  | 14    | job-shop, resource, activity, preempt, scheduling, machine, order, job, task  |                                  | geost, cycle                             |                | Ilog Solver, OPL            | satellite, robot                                      |                               |   |   | 290 | 902 |
| PerezGSL23 [407]    | 7     | resource, inventory, scheduling, task, order, machine, activity, make-span, completion-time, transportation, re-scheduling  |                                  | table constraint, cumulative             |                | OPL                         | operating room, nurse, steel mill, container terminal |                               | real-world, generated instance                        |   | 9   | 621 |
| PesantRR15 [409]    | 16    | activity, transportation, lazy clause generation, scheduling, order   |                                  | cumulative, table constraint             |                | Gurobi, Gecode, Ilog Solver |   |                               |   |   | 127 | 739 |
| PoderB08 [411]      | 8     | resource, producer/consumer, release-date, task, activity, preempt, due-date, order, scheduling   |                                  | cumulative                               |                | CHIP                        |   |                               |   | sweep   | 212 | 824 |
| PopovicCGNC22 [415] | 15    | order, completion-time, scheduling, make-span, machine, task, resource, transportation, activity  | TMS                              | cumulative, alwaysIn, noOverlap          | C++, Prolog    | Cplex, SICStus, CHIP, OZ    | pipeline  | electricity industry          |   |   | 25  | 637 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work              | Pages | Concepts  | Classification                   | Constraints  | Prog Languages | CP Systems                                    | Areas                        | Industries | Benchmarks  | Algorithm                         | a   | c   |
|-------------------|-------|---|----------------------------------|--|----------------|---|------------------------------|------------|---|-----------------------------------|-----|-----|
| PovedaAA23 [417]  | 21    | make-span, resource, job, precedence, lazy clause generation, release-date, task, job-shop, scheduling, preempt, activity, order  | RCPSP                            | cumulative, disjunctive  | Python         | Chuffed, Cplex, MiniZinc, CPO                 | automotive, aircraft         |            | real-world, github, benchmark, industrial instance, real-life |                                   | 10  | 622 |
| Pralet17 [418]    | 19    | setup-time, job, activity, precedence, job-shop, due-date, order, sequence dependent setup, make-span, resource, scheduling, machine  | RCPSP, psplib, JSSP              | cycle, cumulative, disjunctive                                   |                | CPO, Cplex, CHIP                              | satellite                    |            | benchmark   |                                   | 94  | 706 |
| PraletLJ15 [419]  | 16    | order, job-shop, activity, make-span, precedence, resource, job, due-date, scheduling, tardiness, task  | JSSP                             | alternative constraint, noOverlap, cycle                         |                | CPO, Cplex                                    | earth observation, satellite |            |   |                                   | 128 | 740 |
| Puget95 [421]     | 4     | resource, job-shop, task, job, activity, order, scheduling, transportation, manpower  |                                  | disjunctive  |                | OPL   |                              |            | benchmark   |                                   | 302 | 914 |
| QuSN06 [424]      | 4     | task, scheduling, distributed, resource, precedence   |                                  | circuit  | Prolog         | SICStus                                       |                              |            |   |                                   | 232 | 844 |
| QuirogaZH05 [425] | 6     | release-date, tardiness, precedence, flow-shop, scheduling, completion-time, make-span, resource, order, inventory, activity, earliness, due-date, flow-time, task, machine |                                  |  |                | Ilog Solver, OPL, OZ, Ilog Scheduler, ECLiPSe | robot                        |            |   |                                   | 247 | 859 |
| RendlPHPR12 [426] | 17    | re-scheduling, job, scheduling, order, machine, transportation  |                                  |  | Java           | OZ  | medical, patient, nurse      |            | real-world, CSPLib, benchmark                                 |                                   | 166 | 778 |
| RiahiNS018 [427]  | 9     | flow-shop, completion-time, job, scheduling, distributed, tardiness, setup-time, order, buffer-capacity, machine, make-span, sequence dependent setup                       |                                  |  |                |   |                              |            | real-world, real-life, benchmark                              |                                   | 82  | 694 |
| RodosekW98 [428]  | 15    | task, order, transportation, machine, activity, make-span, job, resource, scheduling  |                                  | circuit, disjunctive, cycle                                      | Prolog         | OPL, CHIP, ECLiPSe, Cplex                     | hoist, electroplating        |            | benchmark   |                                   | 291 | 903 |
| RossiTHP07 [431]  | 15    | resource, inventory, scheduling, distributed, stock level, order  |                                  | cumulative, cycle  |                | OPL, Choco Solver                             |                              |            |   |                                   | 225 | 837 |
| Sadykov04 [434]   | 7     | release-date, due-date, preempt, scheduling, completion-time, task, precedence, machine, job, lateness  | parallel machine, single machine | disjunctive  |                |   |                              |            |   | edge-finding                      | 259 | 871 |
| SchuttCSW12 [439] | 17    | scheduling, resource, order, preempt, activity, lazy clause generation, precedence, make-span   |                                  | cumulative   |                | CHIP  |                              |            | benchmark   |                                   | 167 | 779 |
| SchuttFS13 [441]  | 17    | resource, job, lazy clause generation, scheduling, task, order, job-shop, machine, activity, make-span, completion-time, precedence   | RCPSP, FJS                       | disjunctive, span constraint, alternative constraint, cumulative |                | MiniZinc                                      |                              |            | benchmark   | time-tabling, energetic reasoning | 156 | 768 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts   | Classification                                  | Constraints                                     | Prog Languages | CP Systems                             | Areas                                     | Industries    | Benchmarks            | Algorithm                                   | a   | c   |
|---------------------|-------|--|---|---|----------------|--|---|---------------|-----------------------|---|-----|-----|
| SchuttFS13a [440]   | 17    | make-span, scheduling, completion-time, resource, order, task, machine, preempt, activity, lazy clause generation, precedence  | RCPSP, psplib                                   | disjunctive, cumulative, circuit                |                | CHIP, OZ                               |   |               | benchmark             | not-last, edge-finding, energetic reasoning | 157 | 769 |
| SchuttFSW09 [442]   | 16    | scheduling, resource, open-shop, order, task, machine, preempt, activity, lazy clause generation, precedence, make-span, job   | psplib  | disjunctive, cumulative                         |                | ECLiPSe, CHIP, SICStus, OZ             |   |               | benchmark, real-world | edge-finder                                 | 201 | 813 |
| SchuttS16 [447]     | 17    | machine, producer/consumer, precedence, order, inventory, lazy clause generation, activity, preempt, manpower, resource, scheduling, make-span   | RCPSP   | cumulative                                      |                | Chuffed, MiniZinc, Ilog Scheduler, OPL |   |               | benchmark             |   | 109 | 721 |
| SchuttW10 [448]     | 15    | task, order, lazy clause generation, activity, preempt, release-date, due-date, resource, scheduling, make-span  | psplib, CuSP, RCPSP                             | disjunctive, cumulative                         | Java           | CHIP                                   | rectangle-packing                         |               | benchmark             | edge-finding, not-last, not-first           | 192 | 804 |
| SchuttWS05 [449]    | 15    | task, order, due-date, machine, preempt, resource, release-date, scheduling  |   | cumulative, disjunctive                         |                | OPL, CHIP                              |   |               | benchmark             | not-last                                    | 248 | 860 |
| SerraNM12 [450]     | 17    | preempt, resource, scheduling, precedence, order, machine, activity, release-date, inventory   |   | alwaysIn, cumulative, cycle                     |                | OPL, Cplex                             |   |               | benchmark, real-world |   | 168 | 780 |
| Shaw98 [452]        | 15    | distributed, resource, machine, job, job-shop, transportation, task, order, scheduling   |   | disjunctive                                     | C++            |  |   |               | benchmark             |   | 292 | 904 |
| SialaAH15 [457]     | 10    | make-span, open-shop, task, machine, precedence, order, cmax, tardiness, job, setup-time, earliness, lazy clause generation, job-shop, resource, scheduling                            | RCPSP, JSSP                                     | disjunctive, cumulative                         |                | Mistral                                |   |               | github, benchmark     | edge-finding                                | 129 | 741 |
| SimoninAHL12 [458]  | 15    | resource, activity, precedence, preempt, scheduling, order, task   |   | disjunctive, span constraint, cumulative, cycle |                | CHIP                                   | satellite                                 |               |                       | sweep                                       | 169 | 781 |
| Simonis95 [460]     | 4     | transportation, resource, scheduling, task, machine, producer/consumer, precedence, order  |   | cumulative, cycle, diffn, circuit               | Prolog         | CHIP                                   | aircraft                                  | food industry |                       |   | 303 | 915 |
| SimonisC95 [462]    | 14    | manpower, flow-shop, task, order, transportation, machine, inventory, job, batch process, producer/consumer, stock level, resource, continuous-process, job-shop, due-date, scheduling |   | diffn, cumulative                               | Prolog         | OZ, CHIP                               | aircraft, pipeline                        | food industry | real-life             |   | 304 | 916 |
| SquillaciPR23 [464] | 17    | resource, activity, multi-agent, distributed, order, scheduling, task  | OSP, Earth Observation Scheduling Problem, EOSP | noOverlap                                       | Python         | Cplex                                  | earth orbit, earth observation, satellite |               | github, benchmark     |   | 11  | 623 |
| SunLYL10 [467]      | 6     | task, order, scheduling, distributed   |   | cycle   |                | Cplex, OPL                             | automotive                                |               |                       |   | 193 | 805 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                  | Pages | Concepts   | Classification                      | Constraints   | Prog Languages | CP Systems                       | Areas         | Industries             | Benchmarks   | Algorithm   | a   | c   |
|-----------------------|-------|--|-------------------------------------|---|----------------|----------------------------------|---------------|------------------------|--|---|-----|-----|
| SvancaraB22 [469]     | 8     | multi-agent, batch process, make-span, order, activity, scheduling, resource, task   |                                     | alternative constraint, noOverlap                             |                |                                  | railway       |                        | benchmark, real-world  | time-tabling  | 26  | 638 |
| SzerediS16 [470]      | 10    | task, order, machine, preempt, activity, make-span, resource, precedence, lazy clause generation, scheduling   | RCPSP, psplib                       | cumulative  |                | Cplex, MiniZinc, Chuffed, Gecode |               |                        | benchmark  |   | 110 | 722 |
| TangB20 [472]         | 16    | batch process, machine, job, flow-shop, precedence, resource, make-span, scheduling, tardiness, due-date, order  | 2BPHFSP, single machine             | span constraint, bin-packing, alwaysIn, endBeforeStart, cycle | Java           | Cplex, CPO                       | semiconductor | manufacturing industry | real-world   |   | 51  | 663 |
| TardivoDFMP23 [474]   | 18    | activity, order, preempt, scheduling, make-span, lazy clause generation, task, resource, precedence  | RCPSP, psplib, CuSP                 | disjunctive, cumulative                                       | C++            | CHIP, Gecode, MiniZinc           |               |                        | bitbucket, github, benchmark, real-world                                   | energetic reasoning, not-last, not-first, edge-finding, time-tabling, sweep | 12  | 624 |
| TasselGS23 [475]      | 9     | scheduling, preempt, flow-time, flow-shop, task, order, completion-time, machine, make-span, re-scheduling, job, precedence, tardiness, resource, job-shop | JSSP                                | cumulative, noOverlap, disjunctive                            | Java           | Choco Solver                     |               |                        | industrial instance, real-world, supplementary material, github, benchmark |   | 13  | 625 |
| Teppan22 [478]        | 8     | job-shop, task, make-span, order, cmax, preempt, distributed, resource, completion-time, scheduling, machine, setup-time, job, flow-shop                   | parallel machine, PTC, FJS, JSSP    | noOverlap, endBeforeStart                                     | Java           | OR-Tools, OPL                    |               |                        | real-life, benchmark   |   | 27  | 639 |
| Tesch16 [481]         | 27    | scheduling, order, job, completion-time, precedence, resource, make-span   | CuSP, psplib, RCPSP                 | cumulative, disjunctive                                       | C++            | OPL                              |               |                        | Roadef   | sweep, edge-finding, energetic reasoning, not-last, time-tabling, not-first | 111 | 723 |
| Tesch18 [482]         | 17    | scheduling, preempt, due-date, order, machine, task, job, completion-time, precedence, lateness, release-date, resource, make-span                         | CuSP, psplib, single machine, RCPSP | cumulative  |                |                                  |               |                        | Roadef   | sweep, edge-finding, energetic reasoning, not-last, time-tabling            | 83  | 695 |
| ThiruvadyBME09 [483]  | 15    | tardiness, open-shop, machine, due-date, job, make-span, scheduling, order, resource, setup-time   | single machine                      | cumulative  | C++            | Gecode                           |               |                        |  |   | 202 | 814 |
| Thorsteinsson01 [485] | 15    | task, due-date, order, scheduling, job, machine, precedence  | parallel machine                    | alldifferent, circuit, cumulative                             |                | OZ, OPL                          |               |                        |  |   | 281 | 893 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts   | Classification                         | Constraints                        | Prog Languages | CP Systems          | Areas                                | Industries | Benchmarks                    | Algorithm                     | a   | c   |
|---------------------|-------|--|--|------------------------------------|----------------|---------------------|--------------------------------------|------------|-------------------------------|-------------------------------|-----|-----|
| Tom19 [487]         | 6     | job-shop, job, re-scheduling, task, tardiness, activity, resource, make-span, scheduling, machine, transportation  | single machine                         |                                    | Java           | OZ, OPL             |                                      |            | real-world                    |                               | 67  | 679 |
| TouatBT22 [490]     | 8     | tardiness, job, activity, preempt, release-date, no preempt, earliness, distributed, due-date, job-shop, flow-shop, resource, scheduling, make-span, completion-time, task, machine, precedence, order | RCPSP, single machine                  | noOverlap                          |                | OZ, OPL, Cplex      | robot, container terminal, satellite |            | benchmark, generated instance | time-tabling                  | 28  | 640 |
| Touraivane95 [491]  | 3     | scheduling, order, task  |  |                                    | Prolog         |                     | crew-scheduling                      |            | real-life                     |                               | 305 | 917 |
| TranB12 [493]       | 6     | resource, make-span, scheduling, due-date, sequence dependent setup, tardiness, job, order, machine, completion-time, distributed, precedence, cmax, setup-time, release-date                          | PMSP, single machine, parallel machine | cycle, circuit                     | C++            | Cplex               |                                      |            | benchmark                     |                               | 170 | 782 |
| TranDRFWOVB16 [494] | 9     | resource, activity, re-scheduling, job, order, scheduling, machine, task, job-shop, precedence   |  | cycle                              | Python         | OPL                 | aircraft                             |            |                               |                               | 112 | 724 |
| TranTDB13 [496]     | 9     | flow-shop, resource, scheduling, make-span, order, cmax, task, machine, job, re-scheduling, flow-time, setup-time, distributed   | parallel machine                       | cycle                              | C++            | Cplex, OZ           |                                      |            | real-world                    |                               | 158 | 770 |
| TranVNB17a [498]    | 5     | scheduling, task, order, transportation, machine, activity, resource, setup-time   |  | alternative constraint, cumulative |                | Cplex               | medical, robot                       |            | real-world                    |                               | 95  | 707 |
| TranWDRFOVB16 [499] | 9     | precedence, job, order, activity, scheduling, job-shop, machine, task  | single machine                         | cumulative, cycle                  | Python         | OPL, Ilog Scheduler | robot, satellite                     |            | benchmark                     |                               | 113 | 725 |
| ValleMGT03 [502]    | 8     | machine, order, transportation, make-span, resource, job, precedence, task, job-shop, scheduling   |  |                                    |                | Ilog Solver         | robot                                |            | real-life                     | edge-finder                   | 268 | 880 |
| VanczaM01 [507]     | 15    | resource, scheduling, precedence, task, machine, order   |  | disjunctive, cycle                 |                | OZ                  | robot                                |            | real-life, real-world         |                               | 282 | 894 |
| VerfaillieL01 [508] | 15    | job, open-shop, order, scheduling, task, job-shop  | Open Shop Scheduling Problem           | cycle                              |                | Cplex, OPL          | earth observation, satellite         |            |                               |                               | 283 | 895 |
| Vilim02 [509]       | 1     | scheduling, precedence, sequence dependent setup, batch process, activity, setup-time, resource  |  | cumulative, disjunctive            |                |                     |                                      |            |                               | edge-finding                  | 279 | 891 |
| Vilim03 [510]       | 1     | scheduling, job, open-shop, order, job-shop  |  | cumulative, disjunctive            |                |                     |                                      |            |                               | not-last, edge-finding        | 269 | 881 |
| Vilim04 [511]       | 13    | scheduling, precedence, sequence dependent setup, batch process, machine, task, job, completion-time, activity, order, setup-time, resource, job-shop  |  | cumulative, disjunctive            |                |                     |                                      |            | benchmark                     | sweep, not-last, edge-finding | 260 | 872 |



Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work              | Pages | Concepts   | Classification            | Constraints                        | Prog Languages | CP Systems         | Areas                                     | Industries                                    | Benchmarks   | Algorithm  | a   | c   |
|-------------------|-------|--|---------------------------|------------------------------------|----------------|--------------------|---|---|--|--|-----|-----|
| Vilim05 [512]     | 14    | scheduling, precedence, preempt, machine, task, job, open-shop, completion-time, activity, order, resource, make-span, job-shop          |                           | cumulative, disjunctive            | C++            |                    |   |   | benchmark  | not-last   | 249 | 861 |
| Vilim09 [513]     | 15    | scheduling, precedence, preempt, job, completion-time, activity, order, resource, job-shop   |                           | cumulative, cycle                  |                | CPO                |   |   |  | energetic reasoning, not-last, edge-finding, not-first           | 203 | 815 |
| Vilim09a [514]    | 15    | order, scheduling, resource, completion-time, task, activity, preempt  |                           | cycle, cumulative                  |                | Ilog Scheduler     |   |   |  | edge-finding, not-last, energetic reasoning                      | 204 | 816 |
| Vilim11 [515]     | 16    | scheduling, precedence, preempt, machine, task, completion-time, activity, order, manpower, resource                                     | psplib, RCPSP             | cumulative, disjunctive, cycle     |                |                    |   |   | benchmark  | sweep, energetic reasoning, not-last, time-tabling, edge-finding | 183 | 795 |
| VilimBC04 [516]   | 15    | distributed, job-shop, resource, scheduling, make-span, open-shop, completion-time, machine, precedence, order, job, activity            |                           | disjunctive, cumulative            |                |                    |   |   | benchmark, real-life   | not-first, edge-finding, not-last                                | 261 | 873 |
| VilimLS15 [518]   | 17    | machine, precedence, order, cmax, job, activity, earliness, job-shop, resource, scheduling, make-span, completion-time, task             | psplib, RCPSP             | noOverlap, disjunctive, cumulative |                | Cplex, CPO, OZ     | rectangle-packing                         |   | benchmark  | time-tabling   | 130 | 742 |
| WangB20 [524]     | 8     | job, order, machine, task, distributed, resource, scheduling   | Fixed Job Scheduling, FJS | alldifferent                       |                | OZ, Gurobi         | aircraft                                  |   | github   |  | 52  | 664 |
| WangB23 [525]     | 8     | job, lazy clause generation, order, task, transportation, resource, scheduling   | Fixed Job Scheduling, FJS | alldifferent                       |                | Gurobi             | crew-scheduling, operating room, aircraft |   | real-world, random instance  |  | 14  | 626 |
| WatsonB08 [528]   | 15    | job-shop, resource, scheduling, make-span, completion-time, machine, order, cmax, job  |                           | disjunctive                        | C++            | Ilog Scheduler     |   |   | benchmark, real-world  |  | 213 | 825 |
| WessenCS20 [529]  | 10    | make-span, completion-time, precedence, job, scheduling, task, order, job-shop, multi-agent  |                           | circuit                            |                | Gecode, OZ         | robot                                     |   | real-world   |  | 53  | 665 |
| WinterMMW22 [531] | 18    | tardiness, precedence, release-date, setup-time, job, scheduling, completion-time, resource, order, task, machine, distributed, due-date | parallel machine, PMSP    | alternative constraint, noOverlap  |                | CPO, Gurobi, Cplex | farming                                   | manufacturing industry, agricultural industry | supplementary material, real-life, industry partner, zenodo, industrial partner, benchmark |  | 29  | 641 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work                | Pages | Concepts  | Classification                   | Constraints   | Prog Languages | CP Systems  | Areas             | Industries | Benchmarks                            | Algorithm                                   | a   | c   |
|---------------------|-------|---|----------------------------------|---|----------------|---|-------------------|------------|---------------------------------------|---|-----|-----|
| Wolf03 [532]        | 15    | completion-time, resource, job, make-span, machine, activity, job-shop, task, order, preempt, scheduling  |                                  | cumulative, disjunctive                                       | Java           |   | pipeline          |            | benchmark                             | not-last, not-first, edge-finding, sweep    | 270 | 882 |
| WolfS05 [533]       | 14    | preempt, activity, order, task, completion-time, scheduling, distributed, resource  |                                  | cumulative  |                | CHIP  |                   |            | real-world                            | energetic reasoning, not-last, sweep        | 250 | 862 |
| WolinskiKG04 [534]  | 8     | resource, precedence, scheduling, machine, order, distributed   | SCC                              | cycle   | Java           |   | pipeline          |            |                                       |   | 263 | 875 |
| WuBB05 [535]        | 1     | scheduling, resource, job, make-span, release-date  |                                  |   |                | Ilog Scheduler                                      |                   |            | benchmark                             |   | 251 | 863 |
| YangSS19 [537]      | 10    | resource, completion-time, machine, task, activity, preempt, order, scheduling, lazy clause generation  |                                  | cumulative, disjunctive                                       | Prolog         | Choco Solver, Gecode, CHIP, SIC-Stus, OPL, OR-Tools | rectangle-packing |            | generated instance                    | not-last, energetic reasoning, edge-finding | 68  | 680 |
| YoungFS17 [539]     | 10    | lazy clause generation, resource, scheduling, make-span, task, machine, precedence, order, activity, preempt  | RCPSP, psplib                    | disjunctive, cumulative                                       |                | Chuffed, MiniZinc                                   |                   |            | benchmark, github, instance generator | time-tabling                                | 96  | 708 |
| YuraszeckMC23 [541] | 6     | cmax, job, open-shop, distributed, order, preempt, scheduling, due-date, job-shop, flow-time, make-span, machine, release-date, precedence                                | OSSP, JSSP                       | noOverlap   |                |   |                   |            | github, benchmark                     |   | 15  | 627 |
| ZhangBB22 [549]     | 9     | preempt, distributed, job-shop, resource, scheduling, make-span, precedence, order, cmax, completion-time, task, machine, job, lateness                                   | single machine                   | disjunctive, cycle, span constraint                           | Python         | CPO, OPL, Gurobi                                    |                   |            | benchmark, generated instance         |   | 30  | 642 |
| ZhangJZL22 [548]    | 6     | setup-time, due-date, scheduling, flow-shop, task, order, completion-time, transportation, machine, make-span, job, precedence, tardiness, resource                       | parallel machine, single machine | alternative constraint, cumulative, noOverlap, endBeforeStart |                | OZ  | semiconductor     |            | benchmark                             |   | 31  | 643 |
| ZhangLS12 [552]     | 4     | scheduling, order, cmax   |                                  |   |                |   |                   |            |                                       | time-tabling                                | 171 | 783 |
| Zhou96 [553]        | 15    | release-date, job-shop, due-date, task, order, scheduling, precedence, completion-time, job, machine  |                                  | disjunctive   | Prolog         | Z3  |                   |            |                                       | edge-finding                                | 300 | 912 |
| ZhouGL15 [555]      | 5     | scheduling, distributed, resource, completion-time, tardiness, machine, setup-time, job, job-shop, flow-shop, task, re-scheduling, make-span, transportation, order, cmax | FJS, HFF, parallel machine       | cumulative  |                | CHIP, OR-Tools, Gecode, OZ                          | railway           |            | real-world                            |   | 131 | 743 |
| ZhuS02 [556]        | 5     | activity, scheduling, distributed, resource   |                                  |   |                |   |                   |            |                                       |   | 280 | 892 |
| ZibranR11 [557]     | 4     | scheduling, order, activity   |                                  |   | Java           | OPL, Cplex  |                   |            |                                       |   | 184 | 796 |

Table 3: Automatically Extracted PAPER Properties (Requires Local Copy)

| Work             | Pages | Concepts  | Classification | Constraints | Prog<br>Languages | CP<br>Systems | Areas | Industries | Benchmarks | Algorithm    | a   | c   |
|------------------|-------|---|----------------|-------------|-------------------|---------------|-------|------------|------------|--------------|-----|-----|
| ZibranR11a [558] | 10    | scheduling, distributed, order,<br>activity, resource |                |             |                   | Cplex, OPL    |       |            |            | time-tabling | 185 | 797 |

## 2.3 Manually Defined Fields

Table 4: Manually Defined PAPER Properties

| Key  | Title (Local Copy)  | CP System  | Bench  | Links | Data Avail           | Sol Avail | Code Avail | Based On | Classification            | Constraints                                 | a  | b   |
|--|---|--|--|-------|----------------------|-----------|------------|----------|---------------------------|---|----|-----|
| AalianPG23<br>AalianPG23 [1]                       | Optimization of Short-Term Underground Mine Planning Using Constraint Programming   | CP Opt   | real-world   | 1     | n                    |           | n          |          |                           | ?   | 1  | 311 |
| Bit-Monnot23<br>Bit-Monnot23 [84]                  | Enhancing Hybrid CP-SAT Search for Disjunctive Scheduling   | ARIES<br>CP Opt<br>OR-Tools<br>Mistral<br>OR-Tools | real-world, github, benchmark  | 1     | y                    |           | y          | -        | JSSP<br>OSSP              | -   | 2  | 353 |
| EfthymiouY23<br>EfthymiouY23 [161]                 | Predicting the Optimal Period for Cyclic Hoist Scheduling Problems  |  | benchmark, random instance, generated instance, real-life, industrial instance | 3     | n                    |           | n          | -        | CHSP                      | -   | 3  | 396 |
| JuvinHHL23<br>JuvinHHL23 [268]                     | An Efficient Constraint Programming Approach to Preemptive Job Shop Scheduling  | CP Opt<br>Mistral                                  | supplementary material, github, benchmark                                      | 6     | ref                  |           | y          |          | PJSSP                     | endBeforeStart<br>span<br>noOverlap         | 4  | 457 |
| JuvinHL23<br>JuvinHL23 [269]                       | Constraint Programming for the Robust Two-Machine Flow-Shop Scheduling Problem with Budgeted Uncertainty                          | CP Opt<br>Cplex                                    | real-world   | 0     | ref                  |           | n          | -        | Perm FSSP                 | endBeforeStart<br>noOverlap<br>sameSequence | 5  | 458 |
| KameugneFND23<br>KameugneFND23 [273]               | Horizontally Elastic Edge Finder Rule for Cumulative Constraint Based on Slack and Density  | ?  | benchmark  | 5     | BL<br>PSPLib         |           | n          | -        | RCPSPs                    | cumulative                                  | 6  | 461 |
| KimCMLLP23<br>KimCMLLP23 [282]                     | Iterated Greedy Constraint Programming for Scheduling Steelmaking Continuous Casting  | Gurobi<br>OR-Tools                                 | real-world, benchmark, zenodo  | 0     | y                    |           | n          | -        | SCC                       | alternative<br>noOverlap                    | 7  | 466 |
| Mehdizadeh-Somarin23<br>Mehdizadeh-Somarin23 [357] | A Constraint Programming Model for a Reconfigurable Job Shop Scheduling Problem with Machine Availability                         | CP Opt   | random instance  | 0     | n                    |           | n          | -        | JSSP<br>RMS               | alternative<br>endBeforeStart<br>noOverlap  | 8  | 508 |
| PerezGSL23<br>PerezGSL23 [407]                     | A Constraint Programming Model for Scheduling the Unloading of Trains in Ports  | custom   | real-world, generated instance   | 0     | n                    |           | n          | -        | SUTP                      | table<br>disjunctive                        | 9  | 533 |
| PovedaAA23<br>PovedaAA23 [417]                     | Partially Preemptive Multi Skill/Mode Resource-Constrained Project Scheduling with Generalized Precedence Relations and Calendars | CP Opt<br>MiniZinc<br>Chuffed                      | real-world, github, benchmark, industrial instance, real-life                  | 4     | y                    |           | y          |          | PP-MS-<br>MMRCPSP/max-cal |   | 10 | 537 |
| SquillaciPR23<br>SquillaciPR23 [464]               | Scheduling Complex Observation Requests for a Constellation of Satellites: Large Neighborhood Search Approaches                   | Cplex Studio                                       | github, benchmark  | 2     | y                    |           | n          | -        | EOSP                      | ?   | 11 | 561 |
| TardivoDFMP23<br>TardivoDFMP23 [474]               | Constraint Propagation on GPU: A Case Study for the Cumulative Constraint   | MiniCPP<br>MiniZinc                                | bitbucket, github, benchmark, real-world                                       | 9     | PSPLib<br>BL<br>Pack |           | y          | -        | RCPSP                     | cumulative                                  | 12 | 566 |
| TasselGS23<br>TasselGS23 [475]                     | An End-to-End Reinforcement Learning Approach for Job-Shop Scheduling Problems Based on Constraint Programming                    | custom<br>Choco                                    | industrial instance, real-world, supplementary material, github, benchmark     | 0     | ref                  |           | y          | -        | JSSP                      | noOverlap                                   | 13 | 567 |
| WangB23<br>WangB23 [525]                           | Dynamic All-Different and Maximal Cliques Constraints for Fixed Job Scheduling  | FaCiLe   | real-world, random instance  | 0     | (y)                  |           | n          | [524]    | FJS                       | -   | 14 | 594 |
| YuraszeckMC23<br>YuraszeckMC23 [541]               | A competitive constraint programming approach for the group shop scheduling problem   | CP Opt   | github, benchmark  | 0     | ref                  |           | n          | -        | GSSP                      | noOverlap<br>endBeforeStart                 | 15 | 604 |

Table 4: Manually Defined PAPER Properties

| Key                                      | Title (Local Copy)  | CP System                               | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification            | Constraints  | a  | b   |
|--|---|---|--|-------|------------|-----------|------------|----------|---------------------------|--|----|-----|
| ArmstrongGOS22<br>ArmstrongGOS22 [19]    | A Two-Phase Hybrid Approach for the Hybrid Flexible Flowshop with Transportation Times  | CP Opt                                  | real-world, benchmark  | 0     | (y)        |           | -          | [18]     | $HFFm tt C_{\max}$        | endBeforeStart<br>alternative<br>cumulative<br>noOverlap   | 16 | 321 |
| BoudreaultSLQ22<br>BoudreaultSLQ22 [104] | A Constraint Programming Approach to Ship Refit Project Scheduling  | MiniZinc Chuffed                        | benchmark, generated instance, supplementary material, gitlab, real-life, industrial partner, github, real-world | 9     |            |           | y          | -        | RCPSP                     | cumulative   | 17 | 365 |
| GeitzGSSW22<br>GeitzGSSW22 [196]         | Solving the Extended Job Shop Scheduling Problem with AGVs - Classical and Quantum Approaches   | firstCS QUBO                            | real-life, github, real-world  | 8     | y          |           | n          | -        | JSSP                      |  | 18 | 417 |
| HebrardALLCMR22<br>HebrardALLCMR22 [230] | An Efficient Approach to Data Transfer Scheduling for Long Range Space Exploration  |   |  | 0     |            |           |            |          |                           |  | 19 | 437 |
| JungblutK22<br>JungblutK22 [267]         | Optimal Schedules for High-Level Programming Environments on FPGAs with Constraint Programming  | MiniZinc                                | benchmark, github, real-world  | 0     | y          |           | y          | -        |                           |  | 20 | 456 |
| LiFJZLL22<br>LiFJZLL22 [319]             | Constraint Programming for a Novel Integrated Optimization of Blocking Job Shop Scheduling and Variable-Speed Transfer Robot Assignment     | OPL CP Opt                              | benchmark  | 0     | ref        |           | n          | -        | BJSSP                     | endBeforeStart<br>alternative<br>noOverlap   | 21 | 487 |
| LuoB22<br>LuoB22 [346]                   | Packing by Scheduling: Using Constraint Programming to Solve a Complex 2D Cutting Stock Problem   | CPO                                     | generated instance, github, real-life, real-world, industrial partner, industrial instance                       | 2     | n          |           | n          | -        | 2SCSP-FF                  | pulse<br>alwaysIn<br>forbidExtent<br>stateFunction   | 22 | 501 |
| OuelletQ22<br>OuelletQ22 [398]           | A MinCumulative Resource Constraint   | Choco                                   | github, benchmark, random instance   | 1     | y          |           | y          | -        |                           | cumulative<br>minCumulative  | 23 | 529 |
| OujanaAYB22<br>OujanaAYB22 [399]         | Solving a realistic hybrid and flexible flow shop scheduling problem through constraint programming: industrial case in a packaging company | CP Opt                                  | benchmark, industrial instance, real-world, real-life  | 0     | n          |           | n          | -        | HFFS                      | alternative<br>span<br>noOverlap<br>endBeforeStart<br>alwaysIn<br>noOverlap  | 24 | 530 |
| PopovicCGNC22<br>PopovicCGNC22 [415]     | Scheduling the Equipment Maintenance of an Electric Power Transmission Network Using Constraint Programming                                 | CP Opt                                  |  | 0     | n          |           | n          | -        | TMS                       |  | 25 | 536 |
| SvancaraB22<br>SvancaraB22 [469]         | Tackling Train Routing via Multi-agent Pathfinding and Constraint-based Scheduling  |   | benchmark, real-world  | 0     |            |           |            |          |                           |  | 26 | 563 |
| Teppan22<br>Teppan22 [478]               | Types of Flexible Job Shop Scheduling: A Constraint Programming Experiment  | OPL                                     | real-life, benchmark   | 0     | ref        |           | n          | -        | FJSSP                     | noOverlap<br>alternative<br>endBeforeStart<br>alternative<br>noOverlap<br>forbidExtent<br>alternative<br>noOverlap | 27 | 568 |
| TouatBT22<br>TouatBT22 [490]             | A Constraint Programming Model for the Scheduling Problem with Flexible Maintenance under Human Resource Constraints                        | OPL                                     | benchmark, generated instance  | 0     | n          |           | n          | -        | Single Machine Scheduling |  | 28 | 574 |
| WinterMMW22<br>WinterMMW22 [531]         | Modeling and Solving Parallel Machine Scheduling with Contamination Constraints in the Agricultural Industry                                | Cplex<br>Gurobi<br>CP Opt<br>Sim Anneal | supplementary material, real-life, industrial partner, zenodo, industrial partner, benchmark                     | 0     | y          |           | y          | -        | PMSP                      |  | 29 | 597 |

Table 4: Manually Defined PAPER Properties

| Key  | Title (Local Copy)  | CP System                          | Bench   | Links | Data Avail    | Sol Avail | Code Avail | Based On | Classification       | Constraints                                     | a  | b   |
|--|---|------------------------------------|---|-------|---------------|-----------|------------|----------|----------------------|---|----|-----|
| ZhangBB22<br>ZhangBB22 [549]               | Solving Job-Shop Scheduling Problems with QUBO-Based Specialized Hardware   |                                    | benchmark, generated instance   | 0     |               |           |            |          |                      |   | 30 | 605 |
| ZhangJZL22<br>ZhangJZL22 [548]             | Constraint Programming for Modeling and Solving a Hybrid Flow Shop Scheduling Problem   | OP Opt                             | benchmark   | 0     | ref           |           | n          | -        | HFSP                 | alternative endBeforeStart noOverlap cumulative | 31 | 606 |
| AntuoriHHEN21<br>AntuoriHHEN21 [15]        | Combining Monte Carlo Tree Search and Depth First Search Methods for a Car Manufacturing Workshop Scheduling Problem                    | MCTS                               | gitlab, supplementary material  | 1     | y             |           | y          |          |                      |   | 32 | 318 |
| ArmstrongGOS21<br>ArmstrongGOS21 [18]      | The Hybrid Flexible Flowshop with Transportation Times  | MiniZinc Chuffed CP Opt SICStus    | instance generator, industry partner, zenodo, supplementary material, real-world, industrial partner, benchmark | 1     | y             |           | y          | -        | $HFFm tt C_{\max}$   | cumulative diffn table                          | 33 | 320 |
| ArtiguesHQT21<br>ArtiguesHQT21 [22]        | Multi-Mode RCPSP with Safety Margin Maximization: Models and Algorithms   |                                    |   | 0     |               |           |            |          |                      |   | 34 | No  |
| Astrand0F21<br>Astrand0F21 [26]            | Short-Term Scheduling of Production Fleets in Underground Mines Using CP-Based LNS  | Gecode                             | benchmark, real-world, real-life, generated instance  | 0     | ref generated |           | n          | -        |                      | -   | 35 | 325 |
| BenderWS21<br>BenderWS21 [73]              | Applying Constraint Programming to the Multi-mode Scheduling Problem in Harvest Logistics   | CP Opt                             |   | 9     | y             |           | n          | -        | MRCPSP               | noOverlap alternative                           | 36 | 347 |
| GeibingerKKMMW21<br>GeibingerKKMMW21 [192] | Physician Scheduling During a Pandemic  | MiniZinc                           | real-world  | 3     | y             |           | n          | -        |                      | nvalue  | 37 | 414 |
| GeibingerMM21<br>GeibingerMM21 [195]       | Constraint Logic Programming for Real-World Test Laboratory Scheduling  | clingcon                           | real-life, github, generated instance, real-world, benchmark  | 0     | y             |           |            |          | TLSP RCPSP           | disjunctive                                     | 38 | 416 |
| HananKP21<br>HananKP21 [225]               | Two Deadline Reduction Algorithms for Scheduling Dependent Tasks on Parallel Processors   | Python                             | Roadef, generated instance, random instance   | 1     | ref           |           | n          | -        | $P prec, r_i, d_i *$ | -   | 39 | 435 |
| HillTV21<br>HillTV21 [246]                 | A Computational Study of Constraint Programming Approaches for Resource-Constrained Project Scheduling with Autonomous Learning Effects | CP Opt                             | real-world  | 0     | PSPlib        |           | n          | -        | RCPSP                | cumulative alternative endBeforeStart           | 40 | 446 |
| KlankeBYE21<br>KlankeBYE21 [283]           | Combining Constraint Programming and Temporal Decomposition Approaches - Scheduling of an Industrial Formulation Plant                  | OR-Tools                           | benchmark, random instance, real-life   | 0     | n             |           | n          | -        |                      | cumulative circuit noOverlap                    | 41 | 467 |
| KovacsTKSG21<br>KovacsTKSG21 [297]         | Utilizing Constraint Optimization for Industrial Machine Workload Balancing   | Gurobi OR-Tools Cplex CP Opt       | github, supplementary material, real-world, benchmark   | 2     | y             |           | y          | -        | extended RCPSP       | cumulative                                      | 42 | 473 |
| LacknerMMWW21<br>LacknerMMWW21 [309]       | Minimizing Cumulative Batch Processing Time for an Industrial Oven Scheduling Problem   | CP Opt Chuffed OR-Tools Gurobi OPL | random instance, industrial partner, benchmark, instance generator, real-life, supplementary material           | 3     | y             |           | y          |          | OSP                  |   | 43 | 482 |

Table 4: Manually Defined PAPER Properties

| Key  | Title (Local Copy)   | CP System                    | Bench   | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification           | Constraints  | a  | b   |
|--|--|------------------------------|---|-------|------------|-----------|------------|----------|--------------------------|--|----|-----|
| AntuoriHHEN20<br>AntuoriHHEN20 [14]          | Leveraging Reinforcement Learning, Constraint Programming and Local Search: A Case Study in Car Manufacturing                      |                              | random instance, generated instance, gitlab, benchmark, industrial instance | 4     |            |           |            |          |                          |  | 44 | 317 |
| BarzegaranZP20<br>BarzegaranZP20 [50]        | Quality-Of-Control-Aware Scheduling of Communication in TSN-Based Fog Computing Platforms Using Constraint Programming             | OR-Tools                     |   | 5     | n          |           | n          | -        | FCP                      |  | 45 | 337 |
| GodetLHS20<br>GodetLHS20 [203]               | Using Approximation within Constraint Programming to Solve the Parallel Machine Scheduling Problem with Additional Unit Resources  | MiniZinc<br>Choco<br>Chuffed | github, real-life, benchmark, generated instance                            | 0     | JSON       |           | y          | -        | PMSPAUR                  | disjunctive cumulative alldifferent enqueueCstr approxCstr groupCumulative | 46 | 423 |
| GroleazNS20<br>GroleazNS20 [216]             | Solving the Group Cumulative Scheduling Problem with CPO and ACO   | CP Opt<br>ACO                | benchmark, industrial instance  | 0     | -          |           | -          | [216]    | GCSP                     |  | 47 | 430 |
| GroleazNS20a<br>GroleazNS20a [215]           | ACO with automatic parameter selection for a scheduling problem with a group cumulative constraint                                 | CPO<br>ACO                   | industrial partner, benchmark   | 0     | y          |           | n          | -        | GCSP                     | groupCumulative  | 48 | 431 |
| Mercier-AubinGQ20<br>Mercier-AubinGQ20 [362] | Leveraging Constraint Scheduling: A Case Study to the Textile Industry   | MiniZinc<br>Chuffed          | industrial instance, industrial partner                                     | 1     | a          |           | a          | -        |                          | circuit cumulative   | 49 | 510 |
| NattafM20<br>NattafM20 [381]                 | Filtering Rules for Flow Time Minimization in a Parallel Machine Scheduling Problem  | Cplex<br>CP Opt              | benchmark, industrial instance  | 7     | -          |           | -          | [351]    | PTC                      | alternative noOverlap  | 50 | 521 |
| TangB20<br>TangB20 [472]                     | CP and Hybrid Models for Two-Stage Batching and Scheduling   | Cplex<br>CP Opt              | real-world  | 0     | n          |           | n          | -        | 2BPHFSP                  | span alwaysIn  | 51 | 565 |
| WangB20<br>WangB20 [524]                     | Global Propagation of Transition Cost for Fixed Job Scheduling   | FaCiLe                       | github  | 0     | y          |           | n          | -        | FJS                      | -  | 52 | 593 |
| WessenCS20<br>WessenCS20 [529]               | Scheduling of Dual-Arm Multi-tool Assembly Robots and Workspace Layout Optimization  | Gecode                       | real-world  | 10    | n          |           | n          | -        |                          | circuit alldifferent   | 53 | 596 |
| BadicaBIL19<br>BadicaBIL19 [30]              | Exploring the Space of Block Structured Scheduling Processes Using Constraint Logic Programming                                    | ECLiPSe                      | github  | 0     | dead       |           | dead       | -        |                          |  | 54 | 327 |
| BehrensLM19<br>BehrensLM19 [65]              | A Constraint Programming Approach to Simultaneous Task Allocation and Motion Scheduling for Industrial Dual-Arm Manipulation Tasks | OR-Tools                     | real-world, github  | 0     | y          |           | y          | -        | STAAMS                   |  | 55 | 343 |
| BogaerdTW19<br>BogaerdTW19 [504]             | Lower Bounds for Uniform Machine Scheduling Using Decision Diagrams  | custom<br>Cplex              | benchmark   | 4     | n          |           | n          | -        | Multi Machine Scheduling | noOverlap  | 56 | 357 |
| ColT19<br>ColT19 [133]                       | Industrial Size Job Shop Scheduling Tackled by Present Day CP Solvers  | CP Opt<br>OR-Tools           | github, benchmark, real-world   | 2     | y          |           | y          | -        | JSSP                     | noOverlap  | 57 | 382 |
| FrimodigS19<br>FrimodigS19 [180]             | Models for Radiation Therapy Patient Scheduling  | Mini-Zinc<br>Gecode<br>Cplex | benchmark, real-world   | 1     | n          |           | n          | -        |                          | cumulative regular bin-packing   | 58 | 405 |
| FrohnertTR19<br>FrohnertTR19 [181]           | Casual Employee Scheduling with Constraint Programming and Metaheuristics  |                              | benchmark, real-world   | 0     |            |           |            |          |                          |  | 59 | 406 |
| GalleguillosKSB19<br>GalleguillosKSB19 [183] | Constraint Programming-Based Job Dispatching for Modern HPC Applications   | OR-Tools                     |   | 5     |            |           | y          |          | on-line dispatch         |  | 60 | 408 |

Table 4: Manually Defined PAPER Properties

| Key                                     | Title (Local Copy)   | CP System         | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification                     | Constraints                          | a  | b   |
|---|--|-------------------|--|-------|------------|-----------|------------|----------|------------------------------------|--------------------------------------|----|-----|
| GeibingerMM19<br>GeibingerMM19 [194]    | Investigating Constraint Programming for Real World Industrial Test Laboratory Scheduling                                    |                   | real-life, generated instance, industrial partner, real-world, benchmark | 3     |            |           |            |          |                                    |                                      | 61 | 415 |
| KucukY19<br>KucukY19 [304]              | A Constraint Programming Approach for Agile Earth Observation Satellite Scheduling Problem                                   |                   | benchmark, generated instance  | 0     |            |           |            |          |                                    |                                      | 62 | 478 |
| LiuLH19<br>LiuLH19 [327]                | Solving the Talent Scheduling Problem by Parallel Constraint Programming   |                   | CSPLib, benchmark  | 0     |            |           |            |          |                                    |                                      | 63 | 495 |
| MalapertN19<br>MalapertN19 [351]        | A New CP-Approach for a Parallel Machine Scheduling Problem with Time Constraints on Machine Qualifications                  |                   | generated instance, benchmark, industrial instance, Roadef               | 3     |            |           |            |          |                                    |                                      | 64 | 506 |
| MurinR19<br>MurinR19 [373]              | Scheduling of Mobile Robots Using Constraint Programming   | CP Opt Cplex OPT. | real-life, benchmark, github   | 3     | y          |           | y          |          | JSPT                               | endBeforeStart alternative noOverlap | 65 | 517 |
| ParkUJR19<br>ParkUJR19 [405]            | Developing a Production Scheduling System for Modular Factory Using Constraint Programming                                   |                   | real-world   | 0     |            |           |            |          |                                    |                                      | 66 | 531 |
| Tom19<br>Tom19 [487]                    | Fuzzy Multi-Constraint Programming Model for Weekly Meals Scheduling   |                   | real-world   | 0     |            |           |            |          |                                    |                                      | 67 | 573 |
| YangSS19<br>YangSS19 [537]              | Time Table Edge Finding with Energy Variables  |                   | generated instance   | 1     |            |           |            |          |                                    |                                      | 68 | 602 |
| ArbaouiY18<br>ArbaouiY18 [17]           | Solving the Unrelated Parallel Machine Scheduling Problem with Additional Resources Using Constraint Programming             |                   | benchmark  | 0     |            |           |            |          |                                    |                                      | 69 | 319 |
| AstrandJZ18<br>AstrandJZ18 [27]         | Fleet Scheduling in Underground Mines Using Constraint Programming   |                   |  | 0     |            |           |            |          |                                    |                                      | 70 | 326 |
| BenediktSMVH18<br>BenediktSMVH18 [76]   | Energy-Aware Production Scheduling with Power-Saving Modes   | CPO Gurobi        | github, random instance, generated instance                              | 1     | y          |           | y          | -        | Energy Aware Production Scheduling |                                      | 71 | 348 |
| CappartTSR18<br>CappartTSR18 [115]      | A Constraint Programming Approach for Solving Patient Transportation Problems  |                   | bitbucket, CSPLib, real-life   | 1     |            |           |            |          |                                    |                                      | 72 | 370 |
| DemirovicS18<br>DemirovicS18 [150]      | Constraint Programming for High School Timetabling: A Scheduling-Based Model with Hot Starts                                 |                   | real-world, benchmark  | 5     |            |           |            |          |                                    |                                      | 73 | 389 |
| He0GLW18<br>He0GLW18 [229]              | A Fast and Scalable Algorithm for Scheduling Large Numbers of Devices Under Real-Time Pricing                                | Gurobi Python     | real-world, bitbucket  | 8     | y          |           | y          | -        | FSDN-DS DSP-MH-RTP                 |                                      | 74 | 436 |
| HoYLLCLC18<br>HoYLLCLC18 [247]          | A Platform for Dynamic Optimal Nurse Scheduling Based on Integer Linear Programming along with Multiple Criteria Constraints |                   | real-world   | 0     |            |           |            |          |                                    |                                      | 75 | 447 |
| KameugneFGOQ18<br>KameugneF-GOQ18 [272] | Horizontally Elastic Not-First/Not-Last Filtering Algorithm for Cumulative Resource Constraint                               |                   | benchmark, real-world  | 0     |            |           |            |          |                                    |                                      | 76 | 460 |
| Laborie18a<br>Laborie18a [307]          | An Update on the Comparison of MIP, CP and Hybrid Approaches for Mixed Resource Allocation and Scheduling                    |                   | real-life, benchmark, real-world   | 0     |            |           |            |          |                                    |                                      | 77 | 481 |
| MusliuSS18<br>MusliuSS18 [376]          | Solver Independent Rotating Workforce Scheduling   |                   | generated instance, benchmark, real-life                                 | 2     |            |           |            |          |                                    |                                      | 78 | 520 |
| NishikawaSTT18<br>NishikawaSTT18 [384]  | Scheduling of Malleable Fork-Join Tasks with Constraint Programming  |                   | real-world, benchmark  | 0     |            |           |            |          |                                    |                                      | 79 | 523 |



Table 4: Manually Defined PAPER Properties

| Key  | Title (Local Copy)   | CP System                | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification               | Constraints | a  | b   |
|--|--|--------------------------|--|-------|------------|-----------|------------|----------|------------------------------|-------------|----|-----|
| NishikawaSTT18a<br>NishikawaSTT18a [385]   | Scheduling of Malleable Tasks Based on Constraint Programming  |                          | real-world, benchmark, real-life   | 0     |            |           |            |          |                              |             | 80 | 524 |
| OuelletQ18<br>OuelletQ18 [397]             | A $O(n \log^2 n)$ Checker and $O(n^2 \log n)$ Filtering Algorithm for the Energetic Reasoning                                |                          | benchmark, Roadeff   | 0     |            |           |            |          |                              |             | 81 | 528 |
| RiahiNS018<br>RiahiNS018 [427]             | Local Search for Flowshops with Setup Times and Blocking Constraints   |                          | real-world, real-life, benchmark   | 0     |            |           |            |          |                              |             | 82 | 544 |
| Tesch18<br>Tesch18 [482]                   | Improving Energetic Propagations for Cumulative Scheduling   |                          | Roadeff  | 0     |            |           |            |          |                              |             | 83 | 570 |
| BofillCSV17<br>BofillCSV17 [90]            | An Efficient SMT Approach to Solve MRCPPSP/max Instances with Tight Constraints on Resources                                 |                          | benchmark  | 2     |            |           |            |          |                              |             | 84 | 354 |
| CappartS17<br>CappartS17 [114]             | Rescheduling Railway Traffic on Real Time Situations Using Time-Interval Variables   | CPO                      | bitbucket, random instance, real-life  | 1     | y          |           | n          | -        | Rescheduling Railway Traffic |             | 85 | 369 |
| CohenHB17<br>CohenHB17 [131]               | (I Can Get) Satisfaction: Preference-Based Scheduling for Concert-Goers at Multi-venue Music Festivals                       |                          |  | 12    |            |           |            |          |                              |             | 86 | 381 |
| GelainPRVW17<br>GelainPRVW17 [197]         | A Local Search Approach for Incomplete Soft Constraint Problems: Experimental Results on Meeting Scheduling Problems         |                          | CSPlib, real-life, benchmark   | 2     |            |           |            |          |                              |             | 87 | 418 |
| GoldwaserS17<br>GoldwaserS17 [206]         | Optimal Torpedo Scheduling   | Chuffed Gurobi           | instance generator, github, generated instance   | 4     | y          |           | n          | -        | Torpedo Scheduling           |             | 88 | 424 |
| Hooker17<br>Hooker17 [254]                 | Job Sequencing Bounds from Decision Diagrams   |                          | benchmark, random instance   | 0     |            |           |            |          |                              |             | 89 | 451 |
| KletzanderM17<br>KletzanderM17 [284]       | A Multi-stage Simulated Annealing Algorithm for the Torpedo Scheduling Problem   |                          |  | 2     |            |           |            |          |                              |             | 90 | 468 |
| LiuCGM17<br>LiuCGM17 [328]                 | NightSplitter: A Scheduling Tool to Optimize (Sub)group Activities   | Chuffed OR-Tools HCSP SA | github   | 11    | n          |           |            | -        | NightSplit                   |             | 91 | 493 |
| Madi-WambaLOBM17<br>Madi-WambaLOBM17 [348] | Green Energy Aware Scheduling Problem in Virtualized Datacenters   |                          | real-world   | 0     |            |           |            |          |                              |             | 92 | 504 |
| MossigeGSMC17<br>MossigeGSMC17 [369]       | Time-Aware Test Case Execution Scheduling for Cyber-Physical Systems   |                          | industrial partner, real-world, benchmark, random instance, CSPlib, generated instance | 4     |            |           |            |          |                              |             | 93 | 514 |
| Pralet17<br>Pralet17 [418]                 | An Incomplete Constraint-Based System for Scheduling with Renewable Resources  |                          | benchmark  | 1     |            |           |            |          |                              |             | 94 | 538 |
| TranVNB17a<br>TranVNB17a [498]             | Robots in Retirement Homes: Applying Off-the-Shelf Planning and Scheduling to a Team of Assistive Robots (Extended Abstract) |                          | real-world   | 0     |            |           |            |          |                              |             | 95 | 579 |
| YoungFS17<br>YoungFS17 [539]               | Constraint Programming Applied to the Multi-Skill Project Scheduling Problem   |                          | benchmark, github, instance generator  | 6     |            |           |            |          |                              |             | 96 | 603 |
| BonfiettiZLM16<br>BonfiettiZLM16 [100]     | The Multirate Resource Constraint  |                          | generated instance, github, industrial instance, benchmark, real-world                 | 1     |            |           |            |          |                              |             | 97 | 363 |

Table 4: Manually Defined PAPER Properties

| Key                                      | Title (Local Copy)   | CP System | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b   |
|--|--|-----------|--|-------|------------|-----------|------------|----------|----------------|-------------|-----|-----|
| BoothNB16<br>BoothNB16 [101]             | A Constraint Programming Approach to Multi-Robot Task Allocation and Scheduling in Retirement Homes                |           | real-world   | 0     |            |           |            |          |                |             | 98  | 364 |
| BridiLBBM16<br>BridiLBBM16 [108]         | DARDIS: Distributed And Randomized Dispatching and Scheduling  |           |  | 0     |            |           |            |          |                |             | 99  | 366 |
| CauwelaertDMS16<br>CauwelaertDMS16 [121] | Efficient Filtering for the Unary Resource with Family-Based Transition Times                                      |           | real-life, bit-bucket, benchmark                           | 2     |            |           |            |          |                |             | 100 | 373 |
| FontaineMH16<br>FontaineMH16 [176]       | Parallel Composition of Scheduling Solvers   |           | benchmark  | 2     |            |           |            |          |                |             | 101 | 402 |
| GilesH16<br>GilesH16 [199]               | Solving a Supply-Delivery Scheduling Problem with Constraint Programming   |           |  | 0     |            |           |            |          |                |             | 102 | 420 |
| GingrasQ16<br>GingrasQ16 [200]           | Generalizing the Edge-Finder Rule for the Cumulative Constraint  |           | benchmark  | 0     |            |           |            |          |                |             | 103 | 421 |
| HechingH16<br>HechingH16 [233]           | Scheduling Home Hospice Care with Logic-Based Benders Decomposition  |           | real-world   | 0     |            |           |            |          |                |             | 104 | 439 |
| JelinekB16<br>JelinekB16 [265]           | Using Constraint Logic Programming to Schedule Solar Array Operations on the International Space Station           |           | real-life  | 2     |            |           |            |          |                |             | 105 | 455 |
| LimHTB16<br>LimHTB16 [322]               | Online HVAC-Aware Occupancy Scheduling with Adaptive Temperature Control   |           | real-world   | 4     |            |           |            |          |                |             | 106 | 489 |
| LuoVLBM16<br>LuoVLBM16 [345]             | Using Metric Temporal Logic to Specify Scheduling Problems   |           |  | 0     |            |           |            |          |                |             | 107 | 502 |
| Madi-WambaB16<br>Madi-WambaB16 [347]     | The TaskIntersection Constraint  |           | real-world, benchmark, random instance, generated instance | 3     |            |           |            |          |                |             | 108 | 503 |
| SchuttS16<br>SchuttS16 [447]             | Explaining Producer/Consumer Constraints   |           | benchmark  | 1     |            |           |            |          |                |             | 109 | 552 |
| SzerediS16<br>SzerediS16 [470]           | Modelling and Solving Multi-mode Resource-Constrained Project Scheduling   |           | benchmark  | 2     |            |           |            |          |                |             | 110 | 564 |
| Tesch16<br>Tesch16 [481]                 | A Nearly Exact Propagation Algorithm for Energetic Reasoning in $O(n^2 \log n)$                                    |           | Roadef   | 1     |            |           |            |          |                |             | 111 | 569 |
| TranDRFWOVB16<br>TranDRFWOVB16 [494]     | A Hybrid Quantum-Classical Approach to Solving Scheduling Problems   |           |  | 0     |            |           |            |          |                |             | 112 | 577 |
| TranWDRFOVB16<br>TranWDRFOVB16 [499]     | Explorations of Quantum-Classical Approaches to Scheduling a Mars Lander Activity Problem                          |           | benchmark  | 0     |            |           |            |          |                |             | 113 | 580 |
| BartakV15<br>BartakV15 [48]              | Reactive Recovery from Machine Breakdown in Production Scheduling with Temporal Distance and Resource Constraints  |           | real-world, real-life                                      | 0     |            |           |            |          |                |             | 114 | 335 |
| BofillGSV15<br>BofillGSV15 [92]          | MaxSAT-Based Scheduling of B2B Meetings  |           | industrial instance  | 3     |            |           |            |          |                |             | 115 | 356 |
| BurtLPS15<br>BurtLPS15 [111]             | Scheduling with Fixed Maintenance, Shared Resources and Nonlinear Feedrate Constraints: A Mine Planning Case Study |           | real-world, benchmark, industry partner                    | 5     |            |           |            |          |                |             | 116 | 368 |
| DejemeppeCS15<br>DejemeppeCS15 [147]     | The Unary Resource with Transition Times   |           | real-world, bitbucket, generated instance, benchmark       | 4     |            |           |            |          |                |             | 117 | 387 |
| EvenSH15<br>EvenSH15 [166]               | A Constraint Programming Approach for Non-preemptive Evacuation Scheduling   |           | real-life, real-world                                      | 0     |            |           |            |          |                |             | 118 | 400 |
| GayHLS15<br>GayHLS15 [187]               | Conflict Ordering Search for Scheduling Problems   |           | benchmark, bit-bucket                                      | 0     |            |           |            |          |                |             | 119 | 410 |

Table 4: Manually Defined PAPER Properties

| Key                    | Title (Local Copy)   | CP System | Bench                                  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b   |
|------------------------|--|-----------|--|-------|------------|-----------|------------|----------|----------------|-------------|-----|-----|
| GayHS15                | Simple and Scalable Time-Table Filtering for the Cumulative Constraint   |           | bitbucket                              | 2     |            |           |            |          |                |             | 120 | 411 |
| GayHS15 [188]          |  |           |  |       |            |           |            |          |                |             |     |     |
| GayHS15a               | Time-Table Disjunctive Reasoning for the Cumulative Constraint   |           | benchmark, bitbucket, real-world       | 0     |            |           |            |          |                |             | 121 | 412 |
| GayHS15a [189]         |  |           |  |       |            |           |            |          |                |             |     |     |
| KreterSS15             | Modeling and Solving Project Scheduling with Calendars   |           | benchmark                              | 3     |            |           |            |          |                |             | 122 | 476 |
| KreterSS15 [298]       |  |           |  |       |            |           |            |          |                |             |     |     |
| LimBTBB15              | Large Neighborhood Search for Energy Aware Meeting Scheduling in Smart Buildings                                 |           | benchmark                              | 3     |            |           |            |          |                |             | 123 | 488 |
| LimBTBB15 [323]        |  |           |  |       |            |           |            |          |                |             |     |     |
| LombardiBM15           | Deterministic Estimation of the Expected Makespan of a POS Under Duration Uncertainty                            |           | benchmark, real-world                  | 0     |            |           |            |          |                |             | 124 | 496 |
| LombardiBM15 [331]     |  |           |  |       |            |           |            |          |                |             |     |     |
| MelgarejoLS15          | A Time-Dependent No-Overlap Constraint: Application to Urban Delivery Problems                                   |           | real-world, benchmark                  | 1     |            |           |            |          |                |             | 125 | 509 |
| MelgarejoLS15 [8]      |  |           |  |       |            |           |            |          |                |             |     |     |
| MurphyMB15             | Design and Evaluation of a Constraint-Based Energy Saving and Scheduling Recommender System                      |           | real-world                             | 3     |            |           |            |          |                |             | 126 | 518 |
| MurphyMB15 [374]       |  |           |  |       |            |           |            |          |                |             |     |     |
| PesantRR15             | A Comparative Study of MIP and CP Formulations for the B2B Scheduling Optimization Problem                       |           |  | 1     |            |           |            |          |                |             | 127 | 534 |
| PesantRR15 [409]       |  |           |  |       |            |           |            |          |                |             |     |     |
| PraletLJ15             | Scheduling Running Modes of Satellite Instruments Using Constraint-Based Local Search                            |           |  | 0     |            |           |            |          |                |             | 128 | 539 |
| PraletLJ15 [419]       |  |           |  |       |            |           |            |          |                |             |     |     |
| SialaAH15              | Two Clause Learning Approaches for Disjunctive Scheduling  |           | github, benchmark                      | 5     |            |           |            |          |                |             | 129 | 557 |
| SialaAH15 [457]        |  |           |  |       |            |           |            |          |                |             |     |     |
| VilimLS15              | Failure-Directed Search for Constraint-Based Scheduling  |           | benchmark                              | 8     |            |           |            |          |                |             | 130 | 592 |
| VilimLS15 [518]        |  |           |  |       |            |           |            |          |                |             |     |     |
| ZhouGL15               | On complex hybrid flexible flowshop scheduling problems based on constraint programming                          |           | real-world                             | 0     |            |           |            |          |                |             | 131 | 609 |
| ZhouGL15 [555]         |  |           |  |       |            |           |            |          |                |             |     |     |
| AlesioNBG14            | Worst-Case Scheduling of Software Tasks - A Constraint Optimization Model to Support Performance Testing         |           | benchmark                              | 2     |            |           |            |          |                |             | 132 | 315 |
| AlesioNBG14 [154]      |  |           |  |       |            |           |            |          |                |             |     |     |
| BartoliniBBLM14        | Proactive Workload Dispatching on the EURORA Supercomputer   |           |  | 4     |            |           |            |          |                |             | 133 | 336 |
| BartoliniBBLM14 [49]   |  |           |  |       |            |           |            |          |                |             |     |     |
| BessiereHMQW14         | Buffered Resource Constraint: Algorithms and Complexity  |           | benchmark, real-life                   | 0     |            |           |            |          |                |             | 134 | 351 |
| BessiereHMQW14 [81]    |  |           |  |       |            |           |            |          |                |             |     |     |
| BofillEGPSV14          | Scheduling B2B Meetings  |           | industrial instance                    | 6     |            |           |            |          |                |             | 135 | 355 |
| BofillEGPSV14 [91]     |  |           |  |       |            |           |            |          |                |             |     |     |
| BonfiettiLM14          | Disregarding Duration Uncertainty in Partial Order Schedules? Yes, We Can!                                       |           | real-world, benchmark                  | 2     |            |           |            |          |                |             | 136 | 361 |
| BonfiettiLM14 [98]     |  |           |  |       |            |           |            |          |                |             |     |     |
| DejemeppeD14           | Continuously Degrading Resource and Interval Dependent Activity Durations in Nuclear Medicine Patient Scheduling |           | bitbucket                              | 0     |            |           |            |          |                |             | 137 | 388 |
| DejemeppeD14 [148]     |  |           |  |       |            |           |            |          |                |             |     |     |
| DerrienP14             | A New Characterization of Relevant Intervals for Energetic Reasoning   |           | random instance                        | 0     |            |           |            |          |                |             | 138 | 390 |
| DerrienP14 [152]       |  |           |  |       |            |           |            |          |                |             |     |     |
| DerrienPZ14            | A Declarative Paradigm for Robust Cumulative Scheduling  |           | benchmark, random instance, real-world | 0     |            |           |            |          |                |             | 139 | 391 |
| DerrienPZ14 [153]      |  |           |  |       |            |           |            |          |                |             |     |     |
| DoulabiRP14            | A Constraint Programming-Based Column Generation Approach for Operating Room Planning and Scheduling             |           |  | 0     |            |           |            |          |                |             | 140 | 394 |
| DoulabiRP14 [158]      |  |           |  |       |            |           |            |          |                |             |     |     |
| FriedrichFMRSS14       | Representing Production Scheduling with Constraint Answer Set Programming  |           |  | 0     |            |           |            |          |                |             | 141 | No  |
| FriedrichFMRSS14 [179] |  |           |  |       |            |           |            |          |                |             |     |     |
| GaySS14                | Continuous Casting Scheduling with Constraint Programming  |           | real-life, CSPlib                      | 0     |            |           |            |          |                |             | 142 | 413 |
| GaySS14 [190]          |  |           |  |       |            |           |            |          |                |             |     |     |

Table 4: Manually Defined PAPER Properties

| Key                                      | Title (Local Copy)   | CP System                        | Bench  | Links | Data Avail                     | Sol Avail | Code Avail | Based On | Classification | Constraints                     | a   | b   |
|--|--|----------------------------------|--|-------|--------------------------------|-----------|------------|----------|----------------|---------------------------------|-----|-----|
| HoundjiSWD14<br>HoundjiSWD14 [259]       | The StockingCost Constraint  |                                  | bitbucket, generated instance  | 0     |                                |           |            |          |                |                                 | 143 | 453 |
| KoschB14<br>KoschB14 [289]               | A New MIP Model for Parallel-Batch Scheduling with Non-identical Job Sizes   |                                  | benchmark  | 0     |                                |           |            |          |                |                                 | 144 | 470 |
| LipovetzkyBPS14<br>LipovetzkyBPS14 [326] | Planning for Mining Operations with Time and Resource Constraints  |                                  | industrial partner, real-life, industry partner, real-world, benchmark, generated instance | 0     |                                |           |            |          |                |                                 | 145 | 492 |
| LouieVNB14<br>LouieVNB14 [342]           | An autonomous assistive robot for planning, scheduling and facilitating multi-user activities  |                                  |  | 0     |                                |           |            |          |                |                                 | 146 | No  |
| BonfiettiLM13<br>BonfiettiLM13 [97]      | De-Cycling Cyclic Scheduling Problems  |                                  |  | 0     |                                |           |            |          |                |                                 | 147 | 360 |
| ChuGNSW13<br>ChuGNSW13 [126]             | On the Complexity of Global Scheduling Constraints under Structural Restrictions   |                                  |  | 0     |                                |           |            |          |                |                                 | 148 | 376 |
| CireCH13<br>CireCH13 [128]               | Mixed Integer Programming vs. Logic-Based Benders Decomposition for Planning and Scheduling  | CP Opt Cplex                     |  | 1     | dead                           |           | n          | -        |                |                                 | 149 | 378 |
| GuSS13 GuSS13 [218]                      | A Lagrangian Relaxation Based Forward-Backward Improvement Heuristic for Maximising the Net Present Value of Resource-Constrained Projects | Chuffed                          | benchmark  | 1     | dead                           |           |            | -        | RCPSPDC        | cumulative maxNVPProp           | 150 | 433 |
| HeinzKB13<br>HeinzKB13 [236]             | Recent Improvements Using Constraint Integer Programming for Resource Allocation and Scheduling  |                                  |  | 0     |                                |           |            |          |                |                                 | 151 | 441 |
| KelarevaTK13<br>KelarevaTK13 [277]       | CP Methods for Scheduling and Routing with Time-Dependent Task Costs   | MiniZinc CPX G12FD SICStus Choco | real-world   | 5     | ref                            |           | -          | -        | LSFRP BPCTOP   | alldifferent alldifferentExcept | 152 | 463 |
| LetortCB13<br>LetortCB13 [317]           | A Synchronized Sweep Algorithm for the <i>k</i> -dimensional cumulative Constraint   |                                  | Roadef, benchmark, random instance   | 2     | PSPlib                         |           | -          | -        | RCPSP          | cumulative kDimensionalCum      | 153 | 486 |
| LombardiM13<br>LombardiM13 [338]         | A Min-Flow Algorithm for Minimal Critical Set Detection in Resource Constrained Project Scheduling   |                                  |  | 0     |                                |           |            |          |                |                                 | 154 | 500 |
| OuelletQ13<br>OuelletQ13 [396]           | Time-Table Extended-Edge-Finding for the Cumulative Constraint   |                                  | benchmark  | 1     |                                |           |            |          |                |                                 | 155 | 527 |
| SchuttFS13<br>SchuttFS13 [441]           | Scheduling Optional Tasks with Explanation   |                                  | benchmark  | 1     |                                |           |            |          |                |                                 | 156 | 549 |
| SchuttFS13a<br>SchuttFS13a [440]         | Explaining Time-Table-Edge-Finding Propagation for the Cumulative Resource Constraint  | Mercury G12                      | benchmark  | 5     | PSPlib AT BL Pack KSD15D PackD |           | -          | -        | RCPSP          | cumulative                      | 157 | 550 |
| TranTDB13<br>TranTDB13 [496]             | Hybrid Queueing Theory and Scheduling Models for Dynamic Environments with Sequence-Dependent Setup Times                                  |                                  | real-world   | 0     |                                |           |            |          |                |                                 | 158 | 578 |
| BillautHL12<br>BillautHL12 [83]          | Complete Characterization of Near-Optimal Sequences for the Two-Machine Flow Shop Scheduling Problem                                       |                                  | random instance  | 0     |                                |           |            |          |                |                                 | 159 | 352 |
| BonfiettiLBM12<br>BonfiettiLBM12 [95]    | Global Cyclic Cumulative Constraint  |                                  | benchmark  | 3     |                                |           |            |          |                |                                 | 160 | 359 |
| BonfiettiM12<br>BonfiettiM12 [99]        | A Constraint-based Approach to Cyclic Resource-Constrained Scheduling Problem  |                                  | industrial instance  | 0     |                                |           |            |          |                |                                 | 161 | 362 |

Table 4: Manually Defined PAPER Properties

| Key                                   | Title (Local Copy)  | CP System           | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints             | a   | b   |
|---------------------------------------|---|---------------------|--|-------|------------|-----------|------------|----------|----------------|-------------------------|-----|-----|
| GuSW12 GuSW12 [219]                   | Maximising the Net Present Value of Large Resource-Constrained Projects   |                     | benchmark  | 2     |            |           |            |          |                |                         | 162 | 434 |
| HeinzB12<br>HeinzB12 [235]            | Reconsidering Mixed Integer Programming and MIP-Based Hybrids for Scheduling  |                     |  | 0     |            |           |            |          |                |                         | 163 | 440 |
| IfrimOS12<br>IfrimOS12 [261]          | Properties of Energy-Price Forecasts for Scheduling   |                     | real-life  | 1     |            |           |            |          |                |                         | 164 | 454 |
| LetortBC12<br>LetortBC12 [316]        | A Scalable Sweep Algorithm for the cumulative Constraint  |                     | Roadef, benchmark, random instance                 | 2     |            |           |            |          |                |                         | 165 | 485 |
| RendlPHPR12<br>RendlPHPR12 [426]      | Hybrid Heuristics for Multimodal Homecare Scheduling  |                     | real-world, CSPLib, benchmark                      | 2     |            |           |            |          |                |                         | 166 | 543 |
| SchuttCSW12<br>SchuttCSW12 [439]      | Maximising the Net Present Value for Resource-Constrained Project Scheduling  |                     | benchmark  | 1     |            |           |            |          |                |                         | 167 | 548 |
| SerraNM12<br>SerraNM12 [450]          | The Offshore Resources Scheduling Problem: Detailing a Constraint Programming Approach  |                     | benchmark, real-world                              | 4     |            |           |            |          |                |                         | 168 | 555 |
| SimoninAHL12<br>SimoninAHL12 [458]    | Scheduling Scientific Experiments on the Rosetta/Philae Mission   | MOST Ilog Scheduler |  | 0     | n          |           | n          | -        |                | cumulative dataTransfer | 169 | 558 |
| TranB12 TranB12 [493]                 | Logic-based Benders Decomposition for Alternative Resource Scheduling with Sequence Dependent Setups                          |                     | benchmark  | 0     |            |           |            |          |                |                         | 170 | 576 |
| ZhangLS12<br>ZhangLS12 [552]          | Model and Solution for Hot Strip Rolling Scheduling Problem Based on Constraint Programming Method                            |                     |  | 0     |            |           |            |          |                |                         | 171 | 607 |
| BajestaniB11<br>BajestaniB11 [31]     | Scheduling an Aircraft Repair Shop  |                     |  | 0     |            |           |            |          |                |                         | 172 | 328 |
| BonfiettiLBM11<br>BonfiettiLBM11 [94] | A Constraint Based Approach to Cyclic RCPSP   |                     | generated instance, industrial instance, benchmark | 3     |            |           |            |          |                |                         | 173 | 358 |
| ChapadosJR11<br>ChapadosJR11 [125]    | Retail Store Workforce Scheduling by Expected Operating Income Maximization   |                     |  | 0     |            |           |            |          |                |                         | 174 | 375 |
| ClercPBJ11<br>ClercPBJ11 [129]        | Filtering Algorithms for Discrete Cumulative Problems with Overloads of Resource  |                     | benchmark  | 1     |            |           |            |          |                |                         | 175 | 379 |
| EdisO11 EdisO11 [160]                 | Parallel Machine Scheduling with Additional Resources: A Lagrangian-Based Constraint Programming Approach                     |                     |  | 0     |            |           |            |          |                |                         | 176 | 395 |
| GrimesH11<br>GrimesH11 [211]          | Models and Strategies for Variants of the Job Shop Scheduling Problem   |                     | benchmark  | 1     |            |           |            |          |                |                         | 177 | 428 |
| HeinzS11<br>HeinzS11 [238]            | Explanations for the Cumulative Constraint: An Experimental Study   |                     | benchmark  | 1     |            |           |            |          |                |                         | 178 | 442 |
| HermenierDL11<br>HermenierDL11 [245]  | Bin Repacking Scheduling in Virtualized Datacenters   |                     |  | 1     |            |           |            |          |                |                         | 179 | 445 |
| KameugneFSN11<br>KameugneFSN11 [274]  | A Quadratic Edge-Finding Filtering Algorithm for Cumulative Resource Constraints  |                     | benchmark  | 1     |            |           |            |          |                |                         | 180 | 462 |
| LahimerLH11<br>LahimerLH11 [311]      | Climbing Depth-Bounded Adjacent Discrepancy Search for Solving Hybrid Flow Shop Scheduling Problems with Multiprocessor Tasks |                     | benchmark  | 2     |            |           |            |          |                |                         | 181 | 483 |
| LombardiBMB11<br>LombardiBMB11 [332]  | Precedence Constraint Posting for Cyclic Scheduling Problems  |                     | benchmark, industrial instance, real-life          | 0     |            |           |            |          |                |                         | 182 | 497 |
| Vilim11 Vilim11 [515]                 | Timetable Edge Finding Filtering Algorithm for Discrete Cumulative Resources  |                     | benchmark  | 1     |            |           |            |          |                |                         | 183 | 590 |

Table 4: Manually Defined PAPER Properties

| Key                     | Title (Local Copy)   | CP System | Bench                          | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b   |
|-------------------------|--|-----------|--------------------------------|-------|------------|-----------|------------|----------|----------------|-------------|-----|-----|
| ZibranR11               | Conflict-Aware Optimal Scheduling of Code Clone Refactoring: A Constraint Programming Approach                     |           |                                | 0     |            |           |            |          |                |             | 184 | 611 |
| ZibranR11 [557]         |  |           |                                |       |            |           |            |          |                |             |     |     |
| ZibranR11a              | A Constraint Programming Approach to Conflict-Aware Optimal Scheduling of Prioritized Code Clone Refactoring       |           |                                | 0     |            |           |            |          |                |             | 185 | 612 |
| ZibranR11a [558]        |  |           |                                |       |            |           |            |          |                |             |     |     |
| BertholdHLS10           | A Constraint Integer Programming Approach for Resource-Constrained Project Scheduling                              |           |                                | 1     |            |           |            |          |                |             | 186 | 350 |
| BertholdHLS10 [80]      |  |           |                                |       |            |           |            |          |                |             |     |     |
| CobanH10                | Single-Facility Scheduling over Long Time Horizons by Logic-Based Benders Decomposition                            |           |                                | 0     |            |           |            |          |                |             | 187 | 380 |
| CobanH10 [130]          |  |           |                                |       |            |           |            |          |                |             |     |     |
| Davenport10             | Integrated Maintenance Scheduling for Semiconductor Manufacturing  |           |                                | 0     |            |           |            |          |                |             | 188 | 385 |
| Davenport10 [139]       |  |           |                                |       |            |           |            |          |                |             |     |     |
| GrimesH10               | Job Shop Scheduling with Setup Times and Maximal Time-Lags: A Simple Constraint Programming Approach               |           | benchmark                      | 1     |            |           |            |          |                |             | 189 | 427 |
| GrimesH10 [210]         |  |           |                                |       |            |           |            |          |                |             |     |     |
| LombardiM10             | Constraint Based Scheduling to Deal with Uncertain Durations and Self-Timed Execution                              |           | real-world, benchmark          | 1     |            |           |            |          |                |             | 190 | 499 |
| LombardiM10 [335]       |  |           |                                |       |            |           |            |          |                |             |     |     |
| MakMS10                 | A constraint programming approach for production scheduling of multi-period virtual cellular manufacturing systems |           |                                | 0     |            |           |            |          |                |             | 191 | 505 |
| MakMS10 [349]           |  |           |                                |       |            |           |            |          |                |             |     |     |
| SchuttW10               | A New $O(n^2 \log n)$ Not-First/Not-Last Pruning Algorithm for Cumulative Resource Constraints                     |           | benchmark                      | 1     |            |           |            |          |                |             | 192 | 553 |
| SchuttW10 [448]         |  |           |                                |       |            |           |            |          |                |             |     |     |
| SunLYL10                | Scheduling Optimization Techniques for FlexRay Using Constraint-Programming  |           |                                | 0     |            |           |            |          |                |             | 193 | 562 |
| SunLYL10 [467]          |  |           |                                |       |            |           |            |          |                |             |     |     |
| Acuna-AgostMFG09        | Constraint Programming and Mixed Integer Linear Programming for Rescheduling Trains under Disrupted Operations     |           | Roadef                         | 1     |            |           |            |          |                |             | 194 | 313 |
| Acuna-AgostMFG09 [5]    |  |           |                                |       |            |           |            |          |                |             |     |     |
| AronssonBK09            | MILP formulations of cumulative constraints for railway scheduling - A comparative study                           |           | real-world, real-life          | 0     |            |           |            |          |                |             | 195 | 322 |
| AronssonBK09 [20]       |  |           |                                |       |            |           |            |          |                |             |     |     |
| Baptiste09              | Constraint-Based Schedulers, Do They Really Work?  |           |                                | 0     |            |           |            |          |                |             | 196 | 329 |
| Baptiste09 [34]         |  |           |                                |       |            |           |            |          |                |             |     |     |
| GrimesHM09              | Closing the Open Shop: Contradicting Conventional Wisdom   |           | benchmark                      | 0     |            |           |            |          |                |             | 197 | 429 |
| GrimesHM09 [213]        |  |           |                                |       |            |           |            |          |                |             |     |     |
| Laborie09               | IBM ILOG CP Optimizer for Detailed Scheduling Illustrated on Three Problems  |           | real-world, benchmark          | 2     |            |           |            |          |                |             | 198 | 480 |
| Laborie09 [306]         |  |           |                                |       |            |           |            |          |                |             |     |     |
| LombardiM09             | A Precedence Constraint Posting Approach for the RCPSP with Time Lags and Variable Durations                       |           | real-world, instance generator | 1     |            |           |            |          |                |             | 199 | 498 |
| LombardiM09 [333]       |  |           |                                |       |            |           |            |          |                |             |     |     |
| MonetteDH09             | Just-In-Time Scheduling with Constraint Programming  |           | benchmark                      | 0     |            |           |            |          |                |             | 200 | 513 |
| MonetteDH09 [366]       |  |           |                                |       |            |           |            |          |                |             |     |     |
| SchuttFSW09             | Why Cumulative Decomposition Is Not as Bad as It Sounds  |           | benchmark, real-world          | 1     |            |           |            |          |                |             | 201 | 551 |
| SchuttFSW09 [442]       |  |           |                                |       |            |           |            |          |                |             |     |     |
| ThiruvadyBME09          | Hybridizing Beam-ACO with Constraint Programming for Single Machine Job Scheduling                                 |           |                                | 0     |            |           |            |          |                |             | 202 | 571 |
| ThiruvadyBME09 [483]    |  |           |                                |       |            |           |            |          |                |             |     |     |
| Vilim09 Vilim09 [513]   | Edge Finding Filtering Algorithm for Discrete Cumulative Resources in $O(kn \log n)$                               |           |                                | 0     |            |           |            |          |                |             | 203 | 588 |
| Vilim09a Vilim09a [514] |  |           |                                |       |            |           |            |          |                |             |     |     |
| Vilim09a                | Max Energy Filtering Algorithm for Discrete Cumulative Resources   |           |                                | 1     |            |           |            |          |                |             | 204 | 589 |
| BarlattCG08             | A Hybrid Approach for Solving Shift-Selection and Task-Sequencing Problems   |           | real-world                     | 1     |            |           |            |          |                |             | 205 | 332 |
| BarlattCG08 [41]        |  |           |                                |       |            |           |            |          |                |             |     |     |
| BeldiceanuCP08          | New Filtering for the cumulative Constraint in the Context of Non-Overlapping Rectangles                           |           | benchmark                      | 0     |            |           |            |          |                |             | 206 | 345 |
| BeldiceanuCP08 [70]     |  |           |                                |       |            |           |            |          |                |             |     |     |
| DoomsH08                | Gap Reduction Techniques for Online Stochastic Project Scheduling  |           |                                | 0     |            |           |            |          |                |             | 207 | 393 |
| DoomsH08 [157]          |  |           |                                |       |            |           |            |          |                |             |     |     |

Table 4: Manually Defined PAPER Properties

| Key   | Title (Local Copy)   | CP System | Bench                 | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b   |
|---|--|-----------|-----------------------|-------|------------|-----------|------------|----------|----------------|-------------|-----|-----|
| HentenryckM08<br>HentenryckM08 [244]          | The Steel Mill Slab Design Problem Revisited   |           | CSPLib                | 0     |            |           |            |          |                |             | 208 | 444 |
| LauLN08<br>LauLN08 [313]                      | A Combinatorial Auction Framework for Solving Decentralized Scheduling Problems (Extended Abstract)                            |           | benchmark, real-world | 0     |            |           |            |          |                |             | 209 | 484 |
| MouraSCL08<br>MouraSCL08 [371]                | Planning and Scheduling the Operation of a Very Large Oil Pipeline Network   |           |                       | 0     |            |           |            |          |                |             | 210 | 515 |
| MouraSCL08a<br>MouraSCL08a [370]              | Heuristics and Constraint Programming Hybridizations for a Real Pipeline Planning and Scheduling Problem                       |           | real-world, benchmark | 0     |            |           |            |          |                |             | 211 | 516 |
| PoderB08<br>PoderB08 [411]                    | Filtering for a Continuous Multi-Resources cumulative Constraint with Resource Consumption and Production                      |           |                       | 0     |            |           |            |          |                |             | 212 | 535 |
| WatsonB08<br>WatsonB08 [528]                  | A Hybrid Constraint Programming / Local Search Approach to the Job-Shop Scheduling Problem                                     |           | benchmark, real-world | 1     |            |           |            |          |                |             | 213 | 595 |
| AkkerDH07<br>AkkerDH07 [503]                  | A Column Generation Based Destructive Lower Bound for Resource Constrained Project Scheduling Problems                         |           |                       | 0     |            |           |            |          |                |             | 214 | 314 |
| BeldiceanuP07<br>BeldiceanuP07 [71]           | A Continuous Multi-resources <i>cumulative</i> Constraint with Positive-Negative Resource Consumption-Production               |           |                       | 0     |            |           |            |          |                |             | 215 | 346 |
| DavenportKRSH07<br>DavenportKRSH07 [140]      | An Application of Constraint Programming to Generating Detailed Operations Schedules for Steel Manufacturing                   |           |                       | 0     |            |           |            |          |                |             | 216 | 386 |
| GarganiR07<br>GarganiR07 [184]                | An Efficient Model and Strategy for the Steel Mill Slab Design Problem   |           | real-life, CSPLib     | 0     |            |           |            |          |                |             | 217 | 409 |
| HoeveGSL07<br>HoeveGSL07 [506]                | Optimal Multi-Agent Scheduling with Constraint Programming   |           | benchmark             | 0     |            |           |            |          |                |             | 218 | 448 |
| KeriK07<br>KeriK07 [279]                      | Computing Tight Time Windows for RCPSPWET with the Primal-Dual Method  |           |                       | 2     |            |           |            |          |                |             | 219 | 464 |
| KovacsB07<br>KovacsB07 [290]                  | A Global Constraint for Total Weighted Completion Time   |           | benchmark             | 0     |            |           |            |          |                |             | 220 | 471 |
| KrogtLPHJ07<br>KrogtLPHJ07 [505]              | Scheduling for Cellular Manufacturing  |           | real-world            | 0     |            |           |            |          |                |             | 221 | 477 |
| Limtanyakul07<br>Limtanyakul07 [324]          | Scheduling of Tests on Vehicle Prototypes Using Constraint and Integer Programming   |           | real-life             | 0     |            |           |            |          |                |             | 222 | 491 |
| MonetteDD07<br>MonetteDD07 [365]              | A Position-Based Propagator for the Open-Shop Problem  |           | benchmark             | 0     |            |           |            |          |                |             | 223 | 512 |
| NethercoteSBBDT07<br>NethercoteS-BBDT07 [382] | MiniZinc: Towards a Standard CP Modelling Language   |           | CSPLib, benchmark     | 1     |            |           |            |          |                |             | 224 | 522 |
| RossiTHP07<br>RossiTHP07 [431]                | Replenishment Planning for Stochastic Inventory Systems with Shortage Cost   |           |                       | 0     |            |           |            |          |                |             | 225 | 546 |
| Beck06<br>Beck06 [52]                         | An Empirical Study of Multi-Point Constructive Search for Constraint-Based Scheduling  |           | benchmark             | 0     |            |           |            |          |                |             | 226 | 338 |
| BeniniBGM06<br>BeniniBGM06 [77]               | Allocation, Scheduling and Voltage Scaling on Energy Aware MPSoCs  |           | real-life             | 0     |            |           |            |          |                |             | 227 | 349 |
| GomesHS06<br>GomesHS06 [209]                  | Constraint Programming for Distributed Planning and Scheduling   |           | real-life             | 0     |            |           |            |          |                |             | 228 | 426 |
| KhemmoudjPB06<br>KhemmoudjPB06 [281]          | When Constraint Programming and Local Search Solve the Scheduling Problem of Electricité de France Nuclear Power Plant Outages |           | real-world            | 0     |            |           |            |          |                |             | 229 | 465 |

Table 4: Manually Defined PAPER Properties

| Key                                   | Title (Local Copy)   | CP System | Bench   | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b   |
|---------------------------------------|--|-----------|---|-------|------------|-----------|------------|----------|----------------|-------------|-----|-----|
| KovacsV06<br>KovacsV06 [296]          | Progressive Solutions: A Simple but Efficient Dominance Rule for Practical RCPSP   |           | industrial partner, benchmark, generated instance | 0     |            |           |            |          |                |             | 230 | 475 |
| LiuJ06 LiuJ06 [329]                   | LP-TPOP: Integrating Planning and Scheduling Through Constraint Programming  |           |   | 0     |            |           |            |          |                |             | 231 | 494 |
| QuSN06 QuSN06 [424]                   | Using Constraint Programming to Achieve Optimal Prefetch Scheduling for Dependent Tasks on Run-Time Reconfigurable Devices |           |   | 0     |            |           |            |          |                |             | 232 | 541 |
| AbrilSB05 AbrilSB05 [4]               | Distributed Constraints for Large-Scale Scheduling Problems  |           |   | 0     |            |           |            |          |                |             | 233 | 312 |
| ArtiouchineB05<br>ArtiouchineB05 [24] | Inter-distance Constraint: An Extension of the All-Different Constraint for Scheduling Equal Length Jobs                   |           | generated instance, random instance               | 0     |            |           |            |          |                |             | 234 | 324 |
| BeckW05 BeckW05 [61]                  | Proactive Algorithms for Scheduling with Probabilistic Durations   |           |   | 0     |            |           |            |          |                |             | 235 | 342 |
| CarchraeBF05<br>CarchraeBF05 [116]    | Methods to Learn Abstract Scheduling Models  |           |   | 0     |            |           |            |          |                |             | 236 | 371 |
| ChuX05 ChuX05 [127]                   | A Hybrid Algorithm for a Class of Resource Constrained Scheduling Problems   |           |   | 0     |            |           |            |          |                |             | 237 | 377 |
| DilkinaDH05<br>DilkinaDH05 [155]      | Extending Systematic Local Search for Job Shop Scheduling Problems   |           |   | 0     |            |           |            |          |                |             | 238 | 392 |
| FortinZDF05<br>FortinZDF05 [177]      | Interval Analysis in Scheduling  |           |   | 0     |            |           |            |          |                |             | 239 | 403 |
| FrankK05<br>FrankK05 [178]            | Mixed Discrete and Continuous Algorithms for Scheduling Airborne Astronomy Observations                                    |           | benchmark   | 0     |            |           |            |          |                |             | 240 | 404 |
| Geske05 Geske05 [198]                 | Railway Scheduling with Declarative Constraint Programming   |           | real-life   | 0     |            |           |            |          |                |             | 241 | 419 |
| GodardLN05<br>GodardLN05 [201]        | Randomized Large Neighborhood Search for Cumulative Scheduling   |           | benchmark   | 0     |            |           |            |          |                |             | 242 | 422 |
| HebrardTW05<br>HebrardTW05 [232]      | Computing Super-Schedules  |           |   | 0     |            |           |            |          |                |             | 243 | 438 |
| Hooker05a<br>Hooker05a [251]          | Planning and Scheduling to Minimize Tardiness  |           |   | 0     |            |           |            |          |                |             | 244 | 450 |
| KovacsEKV05<br>KovacsEKV05 [293]      | Proterv-II: An Integrated Production Planning and Scheduling System  |           | real-life   | 0     |            |           |            |          |                |             | 245 | 472 |
| MoffittPP05<br>MoffittPP05 [363]      | Augmenting Disjunctive Temporal Problems with Finite-Domain Constraints  |           |   | 0     |            |           |            |          |                |             | 246 | 511 |
| QuirogaZH05<br>QuirogaZH05 [425]      | A Constraint Programming Approach to Tool Allocation and Resource Scheduling in FMS  |           |   | 0     |            |           |            |          |                |             | 247 | 542 |
| SchuttWS05<br>SchuttWS05 [449]        | Not-First and Not-Last Detection for Cumulative Scheduling in $O(n^3 \log n)$  |           | benchmark   | 0     |            |           |            |          |                |             | 248 | 554 |
| Vilim05 Vilim05 [512]                 | Computing Explanations for the Unary Resource Constraint   |           | benchmark   | 4     |            |           |            |          |                |             | 249 | 587 |
| Wolfs05 Wolfs05 [533]                 | $O(n \log n)$ Overload Checking for the Cumulative Constraint and Its Application  |           | real-world  | 0     |            |           |            |          |                |             | 250 | 599 |
| WuBB05 WuBB05 [535]                   | Scheduling with Uncertain Start Dates  |           | benchmark   | 0     |            |           |            |          |                |             | 251 | 601 |
| ArtiguesBF04<br>ArtiguesBF04 [21]     | A New Exact Solution Algorithm for the Job Shop Problem with Sequence-Dependent Setup Times                                |           | benchmark   | 0     |            |           |            |          |                |             | 252 | 323 |
| BeckW04 BeckW04 [60]                  | Job Shop Scheduling with Probabilistic Durations   |           |   | 0     |            |           |            |          |                |             | 253 | 341 |
| HentenryckM04<br>HentenryckM04 [243]  | Scheduling Abstractions for Local Search   |           | benchmark   | 0     |            |           |            |          |                |             | 254 | 443 |



Table 4: Manually Defined PAPER Properties

| Key                                  | Title (Local Copy)   | CP System | Bench                                    | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b   |
|--------------------------------------|--|-----------|--|-------|------------|-----------|------------|----------|----------------|-------------|-----|-----|
| Hooker04<br>Hooker04 [249]           | A Hybrid Method for Planning and Scheduling  |           | random instance                          | 0     |            |           |            |          |                |             | 255 | 449 |
| KovacsV04<br>KovacsV04 [295]         | Completable Partial Solutions in Constraint Programming and Constraint-Based Scheduling  |           | industrial partner, benchmark, real-life | 0     |            |           |            |          |                |             | 256 | 474 |
| LimRX04<br>LimRX04 [321]             | Solving the Crane Scheduling Problem Using Intelligent Search Schemes  |           | generated instance                       | 0     |            |           |            |          |                |             | 257 | 490 |
| MaraveliasG04<br>MaraveliasG04 [354] | Using MILP and CP for the Scheduling of Batch Chemical Processes   |           |  | 0     |            |           |            |          |                |             | 258 | 507 |
| Sadykov04<br>Sadykov04 [434]         | A Hybrid Branch-And-Cut Algorithm for the One-Machine Scheduling Problem   |           |  | 0     |            |           |            |          |                |             | 259 | 547 |
| Vilim04 Vilim04 [511]                | O(n log n) Filtering Algorithms for Unary Resource Constraint  |           | benchmark                                | 1     |            |           |            |          |                |             | 260 | 586 |
| VilimBC04<br>VilimBC04 [516]         | Unary Resource Constraint with Optional Activities   |           | benchmark, real-life                     | 0     |            |           |            |          |                |             | 261 | 591 |
| VillaverdeP04<br>VillaverdeP04 [519] | An Investigation of Scheduling in Distributed Constraint Logic Programming   |           |  | 0     |            |           |            |          |                |             | 262 | No  |
| WolinskiKG04<br>WolinskiKG04 [534]   | A Constraints Programming Approach to Communication Scheduling on SoPC Architectures   |           |  | 0     |            |           |            |          |                |             | 263 | 600 |
| BeckPS03<br>BeckPS03 [58]            | Vehicle Routing and Job Shop Scheduling: What's the Difference?  |           | benchmark, real-world                    | 0     |            |           |            |          |                |             | 264 | 340 |
| DannaP03<br>DannaP03 [137]           | Structured vs. Unstructured Large Neighborhood Search: A Case Study on Job-Shop Scheduling Problems with Earliness and Tardiness Costs |           | benchmark                                | 0     |            |           |            |          |                |             | 265 | 384 |
| Kumar03<br>Kumar03 [303]             | Incremental Computation of Resource-Envelopes in Producer-Consumer Models  |           |  | 0     |            |           |            |          |                |             | 266 | 479 |
| OddiPCC03<br>OddiPCC03 [394]         | Generating High Quality Schedules for a Spacecraft Memory Downlink Problem   |           | benchmark                                | 0     |            |           |            |          |                |             | 267 | 526 |
| ValleMGT03<br>ValleMGT03 [502]       | On Selecting and Scheduling Assembly Plans Using Constraint Programming  |           | real-life                                | 0     |            |           |            |          |                |             | 268 | 581 |
| Vilim03 Vilim03 [510]                | Computing Explanations for Global Scheduling Constraints   |           |  | 0     |            |           |            |          |                |             | 269 | 585 |
| Wolf03 Wolf03 [532]                  | Pruning while Sweeping over Task Intervals   |           | benchmark                                | 0     |            |           |            |          |                |             | 270 | 598 |
| Bartak02 Bartak02 [43]               | Visopt ShopFloor: On the Edge of Planning and Scheduling   |           | real-life                                | 0     |            |           |            |          |                |             | 271 | 333 |
| Bartak02a<br>Bartak02a [42]          | Visopt ShopFloor: Going Beyond Traditional Scheduling  |           | benchmark, real-life                     | 0     |            |           |            |          |                |             | 272 | 334 |
| BeldiceanuC02<br>BeldiceanuC02 [68]  | A New Multi-resource cumulatives Constraint with Negative Heights  |           | real-life, random instance, benchmark    | 0     |            |           |            |          |                |             | 273 | 344 |
| ElkhyariGJ02<br>ElkhyariGJ02 [162]   | Conflict-Based Repair Techniques for Solving Dynamic Scheduling Problems   |           |  | 0     |            |           |            |          |                |             | 274 | 397 |
| ElkhyariGJ02a<br>ElkhyariGJ02a [163] | Solving Dynamic Resource Constraint Project Scheduling Problems Using New Constraint Programming Tools                                 |           | benchmark, real-life                     | 0     |            |           |            |          |                |             | 275 | 398 |
| HookerY02<br>HookerY02 [258]         | A Relaxation of the Cumulative Constraint  |           |  | 0     |            |           |            |          |                |             | 276 | 452 |
| KamarainenS02<br>KamarainenS02 [270] | Local Probing Applied to Scheduling  |           | real-world, benchmark                    | 2     |            |           |            |          |                |             | 277 | 459 |
| Muscettola02<br>Muscettola02 [375]   | Computing the Envelope for Stepwise-Constant Resource Allocations  |           |  | 0     |            |           |            |          |                |             | 278 | 519 |
| Vilim02 Vilim02 [509]                | Batch Processing with Sequence Dependent Setup Times   |           |  | 0     |            |           |            |          |                |             | 279 | 584 |

Table 4: Manually Defined PAPER Properties

| Key                                      | Title (Local Copy)   | CP System | Bench                 | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b   |
|--|--|-----------|-----------------------|-------|------------|-----------|------------|----------|----------------|-------------|-----|-----|
| ZhuS02 ZhuS02 [556]                      | A Meeting Scheduling System Based on Open Constraint Programming   |           |                       | 0     |            |           |            |          |                |             | 280 | 610 |
| Thorsteinsson01<br>Thorsteinsson01 [485] | Branch-and-Check: A Hybrid Framework Integrating Mixed Integer Programming and Constraint Logic Programming                      |           |                       | 0     |            |           |            |          |                |             | 281 | 572 |
| VanczaM01<br>VanczaM01 [507]             | A Constraint Engine for Manufacturing Process Planning   |           | real-life, real-world | 0     |            |           |            |          |                |             | 282 | 582 |
| VerfaillieL01<br>VerfaillieL01 [508]     | Selecting and Scheduling Observations for Agile Satellites: Some Lessons from the Constraint Reasoning Community Point of View   |           |                       | 0     |            |           |            |          |                |             | 283 | 583 |
| AngelsmarkJ00<br>AngelsmarkJ00 [13]      | Some Observations on Durations, Scheduling and Allen's Algebra   |           |                       | 0     |            |           |            |          |                |             | 284 | 316 |
| FocacciLN00<br>FocacciLN00 [175]         | Solving Scheduling Problems with Setup Times and Alternative Resources   |           | real-world            | 0     |            |           |            |          |                |             | 285 | 401 |
| KorbaaYG99<br>KorbaaYG99 [287]           | Solving transient scheduling problem for cyclic production using timed Petri nets and constraint programming                     |           |                       | 0     |            |           |            |          |                |             | 286 | 469 |
| CestaOS98<br>CestaOS98 [124]             | Scheduling Multi-capacitated Resources Under Complex Temporal Constraints  |           |                       | 0     |            |           |            |          |                |             | 287 | 374 |
| FrostD98 FrostD98 [182]                  | Optimizing with Constraints: A Case Study in Scheduling Maintenance of Electric Power Units                                      |           |                       | 0     |            |           |            |          |                |             | 288 | 407 |
| GruianK98<br>GruianK98 [217]             | Operation Binding and Scheduling for Low Power Using Constraint Logic Programming  |           | benchmark             | 0     |            |           |            |          |                |             | 289 | 432 |
| PembertonG98<br>PembertonG98 [406]       | A constraint-based approach to satellite scheduling  |           |                       | 0     |            |           |            |          |                |             | 290 | 532 |
| RodosekW98<br>RodosekW98 [428]           | A Generic Model and Hybrid Algorithm for Hoist Scheduling Problems   |           | benchmark             | 0     |            |           |            |          |                |             | 291 | 545 |
| Shaw98 Shaw98 [452]                      | Using Constraint Programming and Local Search Methods to Solve Vehicle Routing Problems  |           | benchmark             | 0     |            |           |            |          |                |             | 292 | 556 |
| BaptisteP97<br>BaptisteP97 [37]          | Constraint Propagation and Decomposition Techniques for Highly Disjunctive and Highly Cumulative Project Scheduling Problems     |           | benchmark             | 0     |            |           |            |          |                |             | 293 | 331 |
| BeckDF97<br>BeckDF97 [54]                | Five Pitfalls of Empirical Scheduling Research   |           | benchmark, real-world | 0     |            |           |            |          |                |             | 294 | 339 |
| BoucherBVBL97<br>BoucherBVBL97 [103]     | Multi-criteria Comparison Between Algorithmic, Constraint Logic and Specific Constraint Programming on a Real Scheduling Problem |           |                       | 0     |            |           |            |          |                |             | 295 | No  |
| Caseau97<br>Caseau97 [120]               | Using Constraint Propagation for Complex Scheduling Problems: Managing Size, Complex Resources and Travel                        |           | benchmark             | 0     |            |           |            |          |                |             | 296 | 372 |
| PapeB97 PapeB97 [403]                    | A Constraint Programming Library for Preemptive and Non-Preemptive Scheduling  |           |                       | 0     |            |           |            |          |                |             | 297 | No  |
| BrusoniCLMMT96<br>BrusoniCLMMT96 [110]   | Resource-Based vs. Task-Based Approaches for Scheduling Problems   |           |                       | 0     |            |           |            |          |                |             | 298 | 367 |
| Colombani96<br>Colombani96 [135]         | Constraint Programming: an Efficient and Practical Approach to Solving the Job-Shop Problem                                      |           |                       | 0     |            |           |            |          |                |             | 299 | 383 |
| Zhou96 Zhou96 [553]                      | A Constraint Program for Solving the Job-Shop Problem  |           |                       | 0     |            |           |            |          |                |             | 300 | 608 |
| Goltz95 Goltz95 [208]                    | Reducing Domains for Search in CLP(FD) and Its Application to Job-Shop Scheduling  |           | benchmark             | 0     |            |           |            |          |                |             | 301 | 425 |
| Puget95 Puget95 [421]                    | Applications of Constraint Programming   |           | benchmark             | 0     |            |           |            |          |                |             | 302 | 540 |
| Simonis95<br>Simonis95 [460]             | The CHIP System and Its Applications   |           |                       | 0     |            |           |            |          |                |             | 303 | 559 |

Table 4: Manually Defined PAPER Properties

| Key                                | Title (Local Copy)  | CP System | Bench                 | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b   |
|------------------------------------|---|-----------|-----------------------|-------|------------|-----------|------------|----------|----------------|-------------|-----|-----|
| SimonisC95<br>SimonisC95 [462]     | Modelling Producer/Consumer Constraints   |           | real-life             | 0     |            |           |            |          |                |             | 304 | 560 |
| Touraivane95<br>Touraivane95 [491] | Constraint Programming and Industrial Applications  |           | real-life             | 0     |            |           |            |          |                |             | 305 | 575 |
| JourdanFRD94<br>JourdanFRD94 [266] | Data Alignment and Task Scheduling On Parallel Machines Using Concurrent Constraint Model-based Programming |           |                       | 0     |            |           |            |          |                |             | 306 | No  |
| NuijtenA94<br>NuijtenA94 [392]     | Constraint Satisfaction for Multiple Capacitated Job Shop Scheduling  |           |                       | 0     |            |           |            |          |                |             | 307 | 525 |
| Wallace94<br>Wallace94 [521]       | Applying Constraints for Scheduling   |           |                       | 0     |            |           |            |          |                |             | 308 | No  |
| BaptisteLV92<br>BaptisteLV92 [40]  | Hoist scheduling problem: an approach based on constraint logic programming                                 |           |                       | 0     |            |           |            |          |                |             | 309 | 330 |
| ErtlK91 ErtlK91 [164]              | Optimal Instruction Scheduling using Constraint Logic Programming   |           | real-world, benchmark | 0     |            |           |            |          |                |             | 310 | 399 |

### 3 Journal Articles

### 3.1 Articles from bibtex

Table 5: Works from bibtex (Total 227)

| Key                | Authors   | Title   | LC  | Cite  | Year | Conference /Journal                                 | Pages | Nr Cites | Nr Refs | b    | c    |
|--------------------|---|---|-----|-------|------|---|-------|----------|---------|------|------|
| PrataAN23          | PrataAN23   | Bruno A. Prata, Levi R. Abreu, Marcelo S. Nagano  | Yes | [420] | 2024 | Results in Control and Optimization                 | 17    | 0        | 0       | 1281 | 1341 |
| abs-2402-00459     | S. Nguyen, Dhananjay R. Thiruvady, Y. Sun, M. Zhang         | Genetic-based Constraint Programming for Resource Constrained Job Scheduling  | Yes | [383] | 2024 | CoRR  | 21    | 0        | 0       | 1340 | 1342 |
| abs-2402-00459     | Levi Ribeiro de Abreu, Marcelo Seido Nagano, Bruno A. Prata | A new two-stage constraint programming approach for open shop scheduling problem with machine blocking                    | Yes | [143] | 2023 | Int. J. Prod. Res.                                  | 20    | 1        | 47      | 1153 | 1343 |
| AbreuPNF23         | AbreuPNF23  | Levi R. Abreu, Bruno A. Prata, Marcelo S. Nagano, Jose M. Framinan  | No  | [3]   | 2023 | Computers Operations Research                       | 1     | 0        | 46      | No   | 1344 |
| AkramNHSA23        | AkramNHSA23   | Bilal Omar Akram, Nor Kamariah Noordin, F. Hashim, Mohd Fadlee A. Rasid, Mustafa Ismael Salman, Abdulrahman M. Abdulghani | Yes | [9]   | 2023 | IEEE Access   | 16    | 0        | 0       | 1155 | 1345 |
| AlfieriGPS23       | AlfieriGPS23  | A. Alfieri, M. Garraffa, E. Pastore, F. Salassa   | Yes | [11]  | 2023 | Computers and Industrial Engineering                | 13    | 0        | 37      | 1156 | 1346 |
| Caballero23        | Caballero23   | Jordi Coll Caballero  | Yes | [112] | 2023 | Constraints An Int. J.                              | 1     | 0        | 0       | 1189 | 1347 |
| CzerniachowskaWZ23 | CzerniachowskaWZ23  | C. Kateryna, W. Radosław, Żywicki, Krzysztof  | Yes | [136] | 2023 | Advances in Science and Technology Research Journal | 14    | 0        | 0       | 1193 | 1348 |
| GurPAE23           | GurPAE23  | S. Gür, M. Pinarbasi, Haci Mehmet Alakas, T. Eren   | Yes | [220] | 2023 | Central Eur. J. Oper. Res.                          | 25    | 1        | 40      | 1213 | 1349 |
| IsikYA23           | IsikYA23  | Eyüp Ensar Isik, Seyda Topaloglu Yildiz, Özge Satir Akpunar   | Yes | [262] | 2023 | Soft Comput.  | 28    | 0        | 127     | 1227 | 1350 |
| LacknerMMWW23      | LacknerMMWW23   | M. Lackner, C. Mrkvicka, N. Musliu, D. Walkiewicz, F. Winter  | Yes | [310] | 2023 | Constraints An Int. J.                              | 42    | 0        | 32      | 1241 | 1351 |
| MontemanniD23      | MontemanniD23   | R. Montemanni, M. Dell'Amico  | Yes | [368] | 2023 | Algorithms  | 13    | 2        | 18      | 1259 | 1352 |
| MontemanniD23a     | MontemanniD23a  | R. Montemanni, M. Dell'Amico  | Yes | [367] | 2023 | EURO J. Comput. Optim.                              | 20    | 0        | 14      | 1260 | 1353 |
| NaderiRR23         | NaderiRR23  | N. Bahman, R. Rubén, R. Vahid   | Yes | [378] | 2023 | INFORMS Journal on Computing                        | 27    | 2        | 50      | 1263 | 1354 |
| ShaikhK23          | ShaikhK23   | Aftab Ahmed Shaikh, Abdullah Ayub Khan  | Yes | [451] | 2023 | Int. J. Electron. Secur. Digit. Forensics           | 12    | 0        | 0       | 1294 | 1355 |
| YuraszeckMCCR23    | YuraszeckMCCR23   | F. Yuraszeck, E. Montero, D. Canut-de-Bon, N. Cuneo, M. Rojel   | Yes | [543] | 2023 | IEEE Access   | 11    | 0        | 0       | 1319 | 1356 |
| abs-2305-19888     | abs-2305-19888  | V. Heinz, A. Novák, M. Vlk, Z. Hanzálek   | Yes | [241] | 2023 | CoRR  | 42    | 0        | 0       | 1337 | 1357 |
| abs-2306-05747     | abs-2306-05747  | P. Tassel, M. Gebser, K. Schekotihin  | Yes | [476] | 2023 | CoRR  | 9     | 0        | 0       | 1338 | 1358 |
| abs-2312-13682     | abs-2312-13682  | G. Perez, G. Glorian, W. Suijlen, A. Lallouet   | Yes | [408] | 2023 | CoRR  | 20    | 0        | 0       | 1339 | 1359 |

Table 5: Works from bibtex (Total 227)

| Key                                     | Authors  | Title  | LC  | Cite  | Year | Conference /Journal  | Pages | Nr Cites | Nr Refs | b    | c    |
|---|--|--|-----|-------|------|--|-------|----------|---------|------|------|
| AbreuN22 AbreuN22                       | Levi Ribeiro de Abreu, Marcelo Seido Nagano  | A new hybridization of adaptive large neighborhood search with constraint programming for open shop scheduling with sequence-dependent setup times | Yes | [142] | 2022 | Comput. Ind. Eng.  | 20    | 10       | 56      | 1152 | 1360 |
| BourreauGGLT22 BourreauGGLT22           | E. Bourreau, T. Garaix, M. Gondran, P. Lacomme, N. Tchernev  | A constraint-programming based decomposition method for the Generalised Workforce Scheduling and Routing Problem (GWSRP)                           | Yes | [105] | 2022 | Int. J. Prod. Res.   | 19    | 4        | 44      | 1187 | 1361 |
| CampeauG22 CampeauG22                   | L. Campeau, M. Gamache   | Short- and medium-term optimization of underground mine planning using constraint programming  | Yes | [113] | 2022 | Constraints An Int. J.   | 18    | 0        | 22      | 1190 | 1362 |
| ColT22 ColT22                           | Giacomo Da Col, Erich Christian Teppan   | Industrial-size job shop scheduling with constraint programming  | Yes | [134] | 2022 | Operations Research Perspectives                                       | 19    | 0        | 0       | 1192 | 1363 |
| FarsiTM22 FarsiTM22                     | A. Farsi, S. Ali Torabi, M. Mokhtarzadeh   | Integrated surgery scheduling by constraint programming and meta-heuristics  | Yes | [172] | 2022 | International Journal of Management Science and Engineering Management | 14    | 0        | 0       | 1203 | 1364 |
| Fatemi-AnarakiMFN22 Fatemi-AnarakiMFN22 | S. Fatemi-Anaraki, R. Tavakkoli-Moghaddam, M. Foumani, B. Vahedi-Nouri                                       | Scheduling of Multi-Robot Job Shop Systems in Dynamic Environments: Mixed-Integer Linear Programming and Constraint Programming Approaches         | No  | [173] | 2022 | Omega  | null  | 0        | 0       | No   | 1365 |
| FetgoD22 FetgoD22                       | S  verine Betmbe Fetgo, Cl  mentin Tayou Djam  gni   | Horizontally Elastic Edge-Finder Algorithm for Cumulative Resource Constraint Revisited  | Yes | [174] | 2022 | Oper. Res. Forum   | 32    | 0        | 20      | 1204 | 1366 |
| HeinzNVH22 HeinzNVH22                   | V. Heinz, A. Nov  k, M. Vlk, Z. Hanz  lek  | Constraint Programming and constructive heuristics for parallel machine scheduling with sequence-dependent setups and common servers               | Yes | [240] | 2022 | Comput. Ind. Eng.  | 16    | 5        | 25      | 1219 | 1367 |
| MullerMKP22 MullerMKP22                 | D. M  ller, Marcus Gerhard M  ller, D. Kress, E. Pesch   | An algorithm selection approach for the flexible job shop scheduling problem: Choosing constraint programming solvers through machine learning     | Yes | [372] | 2022 | Eur. J. Oper. Res.   | 18    | 17       | 59      | 1261 | 1368 |
| NaderiBZ22 NaderiBZ22                   | B. Naderi, Mehmet A. Begen, G. Zhang   | Integrated Order Acceptance and Resource Decisions Under Uncertainty: Robust and Stochastic Approaches   | Yes | [377] | 2022 | SSRN Electronic Journal  | 29    | 0        | 44      | 1262 | 1369 |
| PohlAK22 PohlAK22                       | M. Pohl, C. Artigues, R. Kolisch   | Solving the time-discrete winter runway scheduling problem: A column generation and constraint programming approach                                | Yes | [413] | 2022 | Eur. J. Oper. Res.   | 16    | 4        | 31      | 1278 | 1370 |
| ShiYXQ22 ShiYXQ22                       | G. Shi, Z. Yang, Y. Xu, Y. Quan  | Solving the integrated process planning and scheduling problem using an enhanced constraint programming-based approach                             | No  | [453] | 2022 | Int. J. Prod. Res.   | 18    | 2        | 45      | No   | 1371 |
| SubulanC22 SubulanC22                   | K. Subulan, G.   akir  | Constraint programming-based transformation approach for a mixed fuzzy-stochastic resource investment project scheduling problem                   | Yes | [465] | 2022 | Soft Comput.   | 38    | 5        | 86      | 1300 | 1372 |
| YunosogluY22 YunusogluY22               | P. Yunusoglu, Seyda Topaloglu Yildiz   | Constraint programming approach for multi-resource-constrained unrelated parallel machine scheduling problem with sequence-dependent setup times   | Yes | [540] | 2022 | Int. J. Prod. Res.   | 18    | 20       | 58      | 1318 | 1373 |
| YuraszeckMPV22 YuraszeckMPV22           | F. Yuraszeck, G. Mej  a, J. Pereira, M. Vil    | A Novel Constraint Programming Decomposition Approach for the Total Flow Time Fixed Group Shop Scheduling Problem                                  | Yes | [542] | 2022 | Mathematics  | 26    | 0        | 0       | 1320 | 1374 |
| abs-2211-14492 abs-2211-14492           | Y. Sun, S. Nguyen, Dhananjay R. Thiruvady, X. Li, Andreas T. Ernst, U. Aickelin                              | Enhancing Constraint Programming via Supervised Learning for Job Shop Scheduling   | Yes | [466] | 2022 | CoRR   | 17    | 0        | 0       | 1336 | 1375 |
| AbohashimaEG21 AbohashimaEG21           | H. Abohashima, Amr B. Eltawil, Mohamed S. Gheith   | A Mathematical Programming Model and a Firefly-Based Heuristic for Real-Time Traffic Signal Scheduling With Physical Constraints                   | Yes | [2]   | 2021 | IEEE Access  | 14    | 1        | 25      | 1150 | 1376 |
| AbreuAPNM21 AbreuAPNM21                 | Levi Ribeiro de Abreu, Kennedy A. G. Ara  jo, Bruno de Athayde Prata, Marcelo Seido Nagano, J. V. Moccellini | A new variable neighbourhood search with a constraint programming search strategy for the open shop scheduling problem with operation repetitions  | Yes | [141] | 2021 | Engineering Optimization   | 21    | 0        | 0       | 1151 | 1377 |

Table 5: Works from bibtex (Total 227)

| Key                                 | Authors  | Title   | LC  | Cite  | Year | Conference /Journal                                 | Pages | Nr Cites | Nr Refs | b    | c    |
|-------------------------------------|--|---|-----|-------|------|---|-------|----------|---------|------|------|
| Bedhief21 Bedhief21                 | Asma Ouled Bedhief   | Comparing Mixed-Integer Programming and Constraint Programming Models for the Hybrid Flow Shop Scheduling Problem with Dedicated Machines         | Yes | [63]  | 2021 | Journal Européen des Systèmes Automatisés           | 7     | 0        | 0       | 1173 | 1378 |
| FanXG21 FanXG21                     | H. Fan, H. Xiong, M. Goh   | Genetic programming-based hyper-heuristic approach for solving dynamic job shop scheduling problem with extended technical precedence constraints | Yes | [171] | 2021 | Comput. Oper. Res.                                  | 15    | 18       | 57      | 1202 | 1379 |
| HamPK21 HamPK21                     | A. Ham, M. Park, Kyung Min Kim   | Energy-Aware Flexible Job Shop Scheduling Using Mixed Integer Programming and Constraint Programming  | Yes | [223] | 2021 | Mathematical Problems in Engineering                | 12    | 0        | 0       | 1216 | 1380 |
| HubnerGSV21 HubnerGSV21             | F. Hübner, P. Gerhards, C. Stürck, R. Volk   | Solving the nuclear dismantling project scheduling problem by combining mixed-integer and constraint programming techniques and metaheuristics    | Yes | [260] | 2021 | J. Sched.   | 22    | 0        | 37      | 1226 | 1381 |
| KoehlerBFFHPSSS21 KoehlerBFFHPSSS21 | J. Koehler, J. Bürgler, U. Fontana, E. Fux, Florian A. Herzog, M. Pouly, S. Saller, A. Salyaeva, P. Scheiblechner, K. Waelti | Cable tree wiring - benchmarking solvers on a real-world scheduling problem with a variety of precedence constraints                              | Yes | [285] | 2021 | Constraints An Int. J.                              | 51    | 2        | 52      | 1232 | 1382 |
| PandeyS21a PandeyS21a               | V. Pandey, P. Saini  | Constraint programming versus heuristic approach to MapReduce scheduling problem in Hadoop YARN for energy minimization                           | Yes | [401] | 2021 | J. Supercomput.                                     | 29    | 3        | 32      | 1275 | 1383 |
| QinWSLS21 QinWSLS21                 | M. Qin, R. Wang, Z. Shi, L. Liu, L. Shi  | A Genetic Programming-Based Scheduling Approach for Hybrid Flow Shop With a Batch Processor and Waiting Time Constraint                           | Yes | [422] | 2021 | IEEE Trans Autom. Sci. Eng.                         | 12    | 12       | 30      | 1283 | 1384 |
| VlkHT21 VlkHT21                     | M. Vlk, Z. Hanzálek, S. Tang   | Constraint programming approaches to joint routing and scheduling in time-sensitive networks  | Yes | [520] | 2021 | Comput. Ind. Eng.                                   | 14    | 7        | 22      | 1312 | 1385 |
| ZhangYW21 ZhangYW21                 | L. Zhang, C. Yu, T. N. Wong  | A graph-based constraint programming approach for the integrated process planning and scheduling problem  | Yes | [550] | 2021 | Comput. Oper. Res.                                  | 10    | 6        | 35      | 1326 | 1386 |
| abs-2102-08778 abs-2102-08778       | Giacomo Da Col, E. Teppan  | Large-Scale Benchmarks for the Job Shop Scheduling Problem  | Yes | [132] | 2021 | CoRR  | 10    | 0        | 0       | 1335 | 1387 |
| AlizdehS20 AlizdehS20               | S. Alizdeh, S. Saeidi  | Fuzzy project scheduling with critical path including risk and resource constraints using linear programming                                      | No  | [12]  | 2020 | Int. J. Adv. Intell. Paradigms                      | 14    | 1        | 0       | No   | 1388 |
| AstrandJZ20 AstrandJZ20             | M. Åstrand, M. Johansson, A. Zanarini  | Underground mine scheduling of mobile machines using Constraint Programming and Large Neighborhood Search   | Yes | [28]  | 2020 | Comput. Oper. Res.                                  | 13    | 16       | 24      | 1158 | 1389 |
| BadicaBI20 BadicaBI20               | A. Badica, C. Badica, M. Ivanovic  | Block structured scheduling using constraint logic programming  | Yes | [29]  | 2020 | AI Commun.  | 17    | 2        | 28      | 1159 | 1390 |
| BenediktMH20 BenediktMH20           | O. Benedikt, I. Módos, Z. Hanzálek   | Power of pre-processing: production scheduling with variable energy pricing and power-saving states   | Yes | [75]  | 2020 | Constraints An Int. J.                              | 19    | 1        | 18      | 1178 | 1391 |
| CauwelaertDS20 CauwelaertDS20       | Sasha Van Cauwelaert, C. Dejemeppe, P. Schaus  | An Efficient Filtering Algorithm for the Unary Resource Constraint with Transition Times and Optional Activities                                  | No  | [123] | 2020 | Journal of Scheduling                               | null  | 2        | 21      | No   | 1392 |
| FallahiAC20 FallahiAC20             | Abdellah El Fallahi, El Yaakoubi Anass, M. Cherkaoui   | Tabu search and constraint programming-based approach for a real scheduling and routing problem   | Yes | [170] | 2020 | International Journal of Applied Management Science | 18    | 0        | 0       | 1201 | 1393 |
| LunardiBLRV20 LunardiBLRV20         | Willian T. Lunardi, Ernesto G. Birgin, P. Laborie, Débora P. Ronconi, H. Voos  | Mixed Integer linear programming and constraint programming models for the online printing shop scheduling problem                                | Yes | [343] | 2020 | Comput. Oper. Res.                                  | 20    | 30       | 18      | 1252 | 1394 |
| MejiaY20 MejiaY20                   | G. Mejía, F. Yuraszeck   | A self-tuning variable neighborhood search algorithm and an effective decoding scheme for open shop scheduling problems with travel/setup times   | Yes | [358] | 2020 | Eur. J. Oper. Res.                                  | 13    | 24       | 45      | 1256 | 1395 |
| MengZRZL20 MengZRZL20               | L. Meng, C. Zhang, Y. Ren, B. Zhang, C. Lv   | Mixed-integer linear programming and constraint programming formulations for solving distributed flexible job shop scheduling problem             | Yes | [360] | 2020 | Comput. Ind. Eng.                                   | 13    | 100      | 62      | 1257 | 1396 |

Table 5: Works from bibtex (Total 227)

| Key                                    | Authors   | Title   | LC  | Cite  | Year | Conference /Journal                          | Pages | Nr Cites | Nr Refs | b    | c    |
|--|---|---|-----|-------|------|--|-------|----------|---------|------|------|
| MokhtarzadehTNF20<br>MokhtarzadehTNF20 | M. Mokhtarzadeh, R. Tavakkoli-Moghaddam, Behdin Vahedi Nouri, A. Farsi        | Scheduling of human-robot collaboration in assembly of printed circuit boards: a constraint programming approach  | Yes | [364] | 2020 | Int. J. Comput. Integr. Manuf.               | 14    | 25       | 32      | 1258 | 1397 |
| Polo-MejiaALB20<br>Polo-MejiaALB20     | O. Polo-Mejia, C. Artigues, P. Lopez, V. Basini                               | Mixed-integer/linear and constraint programming approaches for activity scheduling in a nuclear research facility   | Yes | [414] | 2020 | Int. J. Prod. Res.                           | 18    | 8        | 23      | 1279 | 1398 |
| QinDCS20 QinDCS20                      | T. Qin, Y. Du, Jiang Hang Chen, M. Sha  | Combining mixed integer programming and constraint programming to solve the integrated scheduling problem of container handling operations of a single vessel | Yes | [423] | 2020 | Eur. J. Oper. Res.                           | 18    | 27       | 30      | 1282 | 1399 |
| SacramentoSP20<br>SacramentoSP20       | D. Sacramento, C. Solnon, D. Pisinger   | Constraint Programming and Local Search Heuristic: a Matheuristic Approach for Routing and Scheduling Feeder Vessels in Multi-terminal Ports                  | Yes | [433] | 2020 | Oper. Res. Forum                             | 33    | 2        | 38      | 1287 | 1400 |
| WallaceY20 WallaceY20                  | M. Wallace, N. Yorke-Smith  | A new constraint programming model and solving for the cyclic hoist scheduling problem  | Yes | [523] | 2020 | Constraints An Int. J.                       | 19    | 5        | 18      | 1314 | 1401 |
| ZarandiASC20<br>ZarandiASC20           | Mohammad Hossein Fazel Zarandi, Ali Akbar Sadat Asl, S. Sotudian, O. Castillo | A state of the art review of intelligent scheduling   | Yes | [545] | 2020 | Artif. Intell. Rev.                          | 93    | 55       | 445     | 1321 | 1402 |
| ZouZ20 ZouZ20                          | X. Zou, L. Zhang  | A constraint programming approach for scheduling repetitive projects with atypical activities considering soft logic  | Yes | [559] | 2020 | Automation in Construction                   | 10    | 0        | 0       | 1328 | 1403 |
| EscobetPQPRA19<br>EscobetPQPRA19       | T. Escobet, V. Puig, J. Quevedo, P. Palà-Schönwälder, J. Romera, W. Adelman   | Optimal batch scheduling of a multiproduct dairy process using a combined optimization/constraint programming approach  | Yes | [165] | 2019 | Comput. Chem. Eng.                           | 10    | 17       | 18      | 1197 | 1404 |
| GurEA19 GurEA19                        | Şeyda Gür, T. Eren, Hacı Mehmet Alakaş  | Surgical Operation Scheduling with Goal Programming and Constraint Programming: A Case Study  | Yes | [560] | 2019 | Mathematics                                  | 24    | 0        | 0       | 1212 | 1405 |
| NishikawaSTT19<br>NishikawaSTT19       | H. Nishikawa, K. Shimada, I. Taniguchi, H. Tomiyama                           | A Constraint Programming Approach to Scheduling of Malleable Tasks  | Yes | [386] | 2019 | Int. J. Netw. Comput.                        | 16    | 0        | 0       | 1266 | 1406 |
| Novas19 Novas19                        | Juan M. Novas   | Production scheduling and lot streaming at flexible job-shops environments using constraint programming   | Yes | [388] | 2019 | Comput. Ind. Eng.                            | 13    | 30       | 29      | 1268 | 1407 |
| WariZ19 WariZ19                        | E. Wari, W. Zhu   | A Constraint Programming model for food processing industry: a case for an ice cream processing facility  | No  | [527] | 2019 | International Journal of Production Research | null  | 11       | 42      | No   | 1408 |
| WikarekS19 WikarekS19                  | J. Wikarek, P. Sitek  | A Constraint-Based Declarative Programming Framework for Scheduling and Resource Allocation Problems  | Yes | [530] | 2019 | Vietnam. J. Comput. Sci.                     | 22    | 0        | 11      | 1316 | 1409 |
| YounespourAKE19<br>YounespourAKE19     | M. Younespour, A. Atighehchian, K. Kianfar, Ehsan Tarkesh Esfahani            | Using mixed integer programming and constraint programming for operating rooms scheduling with modified block strategy  | Yes | [538] | 2019 | Operations research for health care          | 11    | 0        | 0       | 1317 | 1410 |
| abs-1901-07914<br>abs-1901-07914       | Jan Kristof Behrens, R. Lange, M. Mansouri                                    | A Constraint Programming Approach to Simultaneous Task Allocation and Motion Scheduling for Industrial Dual-Arm Manipulation Tasks                            | Yes | [66]  | 2019 | CoRR   | 8     | 0        | 0       | 1331 | 1411 |
| abs-1902-01193<br>abs-1902-01193       | O. M. Alade, A. O. Amusat   | Solving Nurse Scheduling Problem Using Constraint Programming Technique   | Yes | [10]  | 2019 | CoRR   | 9     | 0        | 0       | 1332 | 1412 |
| abs-1902-09244<br>abs-1902-09244       | Viktoria A. Hauder, A. Beham, S. Raggl, Sophie N. Parragh, M. Affenzeller     | On constraint programming for a new flexible project scheduling problem with resource constraints   | Yes | [228] | 2019 | CoRR   | 62    | 0        | 0       | 1333 | 1413 |
| abs-1911-04766<br>abs-1911-04766       | T. Geibinger, F. Mischek, N. Musliu   | Investigating Constraint Programming and Hybrid Methods for Real World Industrial Test Laboratory Scheduling  | Yes | [193] | 2019 | CoRR   | 16    | 0        | 0       | 1334 | 1414 |
| BaptisteB18<br>BaptisteB18             | P. Baptiste, N. Bonifas   | Redundant cumulative constraints to compute preemptive bounds   | Yes | [35]  | 2018 | Discret. Math.                               | 10    | 3        | 13      | 1162 | 1415 |
| BorghesiBLMB18<br>BorghesiBLMB18       | A. Borghesi, A. Bartolini, M. Lombardi, M. Milano, L. Benini                  | Scheduling-based power capping in high performance computing systems  | Yes | [102] | 2018 | Sustain. Comput. Informatics Syst.           | 13    | 11       | 22      | 1186 | 1416 |



Table 5: Works from bibtex (Total 227)

| Key                              | Authors  | Title   | LC  | Cite  | Year | Conference /Journal                                   | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|--|---|-----|-------|------|---|-------|----------|---------|------|------|
| CauwelaertLS18<br>CauwelaertLS18 | Sascha Van Cauwelaert, M. Lombardi, P. Schaus  | How efficient is a global constraint in practice? - A fair experimental framework   | Yes | [122] | 2018 | Constraints An Int. J.                                | 36    | 2        | 39      | 1191 | 1417 |
| FahimiOQ18<br>FahimiOQ18         | H. Fahimi, Y. Ouellet, C. Quimper  | Linear-time filtering algorithms for the disjunctive constraint and a quadratic filtering algorithm for the cumulative not-first not-last   | Yes | [168] | 2018 | Constraints An Int. J.                                | 22    | 2        | 20      | 1199 | 1418 |
| GedikKEK18<br>GedikKEK18         | R. Gedik, D. Kalathia, G. Egilmez, E. Kirac  | A constraint programming approach for solving unrelated parallel machine scheduling problem   | Yes | [191] | 2018 | Comput. Ind. Eng.                                     | 11    | 43       | 22      | 1207 | 1419 |
| GokgurHO18<br>GokgurHO18         | B. Gökgür, B. Hnich, S. Özpeynirci   | Parallel machine scheduling with tool loading: a constraint programming approach  | Yes | [205] | 2018 | Int. J. Prod. Res.                                    | 17    | 31       | 43      | 1209 | 1420 |
| GoldwaserS18<br>GoldwaserS18     | A. Goldwaser, A. Schutt  | Optimal Torpedo Scheduling  | Yes | [207] | 2018 | J. Artif. Intell. Res.                                | 32    | 8        | 0       | 1210 | 1421 |
| Ham18 Ham18                      | A. Ham   | Integrated scheduling of m-truck, m-drone, and m-depot constrained by time-window, drop-pickup, and m-visit using constraint programming  | Yes | [222] | 2018 | Transportation Research Part C: Emerging Technologies | 14    | 0        | 0       | 1215 | 1422 |
| HookerH18 HookerH18              | John N. Hooker, Willem Jan van Hoeve   | Constraint programming and operations research  | Yes | [257] | 2018 | Constraints An Int. J.                                | 24    | 12       | 189     | 1225 | 1423 |
| KreterSSZ18<br>KreterSSZ18       | S. Kreter, A. Schutt, Peter J. Stuckey, J. Zimmermann  | Mixed-integer linear programming and constraint programming formulations for solving resource availability cost problems  | No  | [300] | 2018 | Eur. J. Oper. Res.                                    | 15    | 25       | 31      | No   | 1424 |
| LaborieRSV18<br>LaborieRSV18     | P. Laborie, J. Rogerie, P. Shaw, P. Vilím  | IBM ILOG CP optimizer for scheduling - 20+ years of scheduling with constraints at IBM/ILOG   | Yes | [308] | 2018 | Constraints An Int. J.                                | 41    | 148      | 35      | 1240 | 1425 |
| PourDERB18<br>PourDERB18         | Shahrzad M. Pour, John H. Drake, Lena Secher Ejlertsen, Kourosh Marjani Rasmussen, Edmund K. Burke | A hybrid Constraint Programming/Mixed Integer Programming framework for the preventive signaling maintenance crew scheduling problem  | Yes | [416] | 2018 | Eur. J. Oper. Res.                                    | 12    | 41       | 13      | 1280 | 1426 |
| ShinBBHO18<br>ShinBBHO18         | Seung Yeob Shin, Y. Brun, H. Balasubramanian, Philip L. Henneman, Leon J. Osterweil                | Discrete-Event Simulation and Integer Linear Programming for Constraint-Aware Resource Scheduling   | Yes | [454] | 2018 | IEEE Trans. Syst. Man Cybern. Syst.                   | 16    | 9        | 31      | 1295 | 1427 |
| TangLWSK18<br>TangLWSK18         | Y. Tang, R. Liu, F. Wang, Q. Sun, Amr A. Kandil  | Scheduling Optimization of Linear Schedule with Constraint Programming  | Yes | [473] | 2018 | Comput. Aided Civ. Infrastructure Eng.                | 28    | 24       | 76      | 1302 | 1428 |
| TranPZLDB18<br>TranPZLDB18       | Tony T. Tran, M. Padmanabhan, Peter Yun Zhang, H. Li, Douglas G. Down, J. Christopher Beck         | Multi-stage resource-aware scheduling for data centers with heterogeneous servers   | Yes | [495] | 2018 | J. Sched.   | 17    | 8        | 26      | 1307 | 1429 |
| ZhangW18 ZhangW18                | S. Zhang, S. Wang  | Flexible Assembly Job-Shop Scheduling With Sequence-Dependent Setup Times and Part Sharing in a Dynamic Environment: Constraint Programming Model, Mixed-Integer Programming Model, and Dispatching Rules | Yes | [551] | 2018 | IEEE Trans. Engineering Management                    | 18    | 49       | 28      | 1325 | 1430 |
| KreterSS17 KreterSS17            | S. Kreter, A. Schutt, Peter J. Stuckey   | Using constraint programming for solving RCPSP/max-cal  | Yes | [299] | 2017 | Constraints An Int. J.                                | 31    | 15       | 20      | 1237 | 1431 |
| NattafAL17 NattafAL17            | M. Nattaf, C. Artigues, P. Lopez   | Cumulative scheduling with variable task profiles and concave piecewise linear processing rate functions  | Yes | [380] | 2017 | Constraints An Int. J.                                | 18    | 5        | 10      | 1265 | 1432 |
| TranVNB17<br>TranVNB17           | Tony T. Tran, Tiago Stegun Vaquero, G. Nejat, J. Christopher Beck                                  | Robots in Retirement Homes: Applying Off-the-Shelf Planning and Scheduling to a Team of Assistive Robots  | Yes | [497] | 2017 | J. Artif. Intell. Res.                                | 68    | 12       | 0       | 1308 | 1433 |
| BlomPS16 BlomPS16                | Michelle L. Blom, Adrian R. Pearce, Peter J. Stuckey   | A Decomposition-Based Algorithm for the Scheduling of Open-Pit Networks Over Multiple Time Periods  | No  | [88]  | 2016 | Manag. Sci.   | 26    | 20       | 36      | No   | 1434 |
| Bonfietti16 Bonfietti16          | A. Bonfietti   | A constraint programming scheduling solver for the MPOpt programming environment  | Yes | [93]  | 2016 | Intelligenza Artificiale                              | 13    | 0        | 19      | 1184 | 1435 |
| BridiBLMB16<br>BridiBLMB16       | T. Bridi, A. Bartolini, M. Lombardi, M. Milano, L. Benini  | A Constraint Programming Scheduler for Heterogeneous High-Performance Computing Machines  | Yes | [107] | 2016 | IEEE Trans. Parallel Distributed Syst.                | 14    | 17       | 22      | 1188 | 1436 |

Table 5: Works from bibtex (Total 227)

| Key                              | Authors   | Title  | LC  | Cite  | Year | Conference /Journal                | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|---|--|-----|-------|------|------------------------------------|-------|----------|---------|------|------|
| DoulabiRP16<br>DoulabiRP16       | Seyed Hossein Hashemi Doulabi, L. Rousseau, G. Pesant                       | A Constraint-Programming-Based Branch-and-Price-and-Cut Approach for Operating Room Planning and Scheduling  | Yes | [159] | 2016 | INFORMS J. Comput.                 | 17    | 56       | 28      | 1196 | 1437 |
| HamC16 HamC16                    | Andy M. Ham, E. Cakici  | Flexible job shop scheduling problem with parallel batch processing machines: MIP and CP approaches  | No  | [224] | 2016 | Computers Industrial Engineering   | null  | 50       | 26      | No   | 1438 |
| HebrardHJMPV16<br>HebrardHJMPV16 | E. Hebrard, M. Huguet, N. Jozefowicz, A. Maillard, C. Pralet, G. Verfaillie | Approximation of the parallel machine scheduling problem with additional unit resources  | Yes | [231] | 2016 | Discret. Appl. Math.               | 10    | 9        | 8       | 1217 | 1439 |
| KuB16 KuB16                      | W. Ku, J. Christopher Beck  | Mixed Integer Programming models for job shop scheduling: A computational analysis   | No  | [301] | 2016 | Comput. Oper. Res.                 | 9     | 119      | 17      | No   | 1440 |
| NovaraNH16<br>NovaraNH16         | Franco M. Novara, Juan M. Novas, Gabriela P. Henning                        | A novel constraint programming model for large-scale scheduling problems in multiproduct multistage batch plants: Limited resources and campaign-based operation | Yes | [387] | 2016 | Comput. Chem. Eng.                 | 17    | 18       | 31      | 1267 | 1441 |
| TranAB16 TranAB16                | Tony T. Tran, A. Araujo, J. Christopher Beck                                | Decomposition Methods for the Parallel Machine Scheduling Problem with Setups  | No  | [492] | 2016 | INFORMS J. Comput.                 | 13    | 72       | 28      | No   | 1442 |
| ZarandiKS16<br>ZarandiKS16       | M. H. Fazel Zarandi, H. Khorshidian, Mohsen Akbarpour Shirazi               | A constraint programming model for the scheduling of JIT cross-docking systems with preemption   | Yes | [544] | 2016 | J. Intell. Manuf.                  | 17    | 28       | 14      | 1322 | 1443 |
| BajestaniB15<br>BajestaniB15     | Maliheh Aramon Bajestani, J. Christopher Beck                               | A two-stage coupled algorithm for an integrated maintenance planning and flowshop scheduling problem with deteriorating machines                                 | Yes | [33]  | 2015 | J. Sched.                          | 16    | 17       | 59      | 1161 | 1444 |
| EvenSH15a EvenSH15a              | C. Even, A. Schutt, Pascal Van Hentenryck                                   | A Constraint Programming Approach for Non-Preemptive Evacuation Scheduling   | Yes | [167] | 2015 | CoRR                               | 16    | 0        | 0       | 1198 | 1445 |
| GoelSHFS15<br>GoelSHFS15         | V. Goel, M. Slusky, Willem-Jan van Hoeve, Kevin C. Furman, Y. Shao          | Constraint programming for LNG ship scheduling and inventory management  | Yes | [204] | 2015 | Eur. J. Oper. Res.                 | 12    | 48       | 4       | 1208 | 1446 |
| GrimesH15 GrimesH15              | D. Grimes, E. Hebrard   | Solving Variants of the Job Shop Scheduling Problem Through Conflict-Directed Search   | No  | [212] | 2015 | INFORMS J. Comput.                 | 17    | 12       | 41      | No   | 1447 |
| Kameugne15<br>Kameugne15         | R. Kameugne   | Propagation techniques of resource constraint for cumulative scheduling  | Yes | [271] | 2015 | Constraints An Int. J.             | 2     | 0        | 0       | 1228 | 1448 |
| LetortCB15 LetortCB15            | A. Letort, M. Carlsson, N. Beldiceanu                                       | Synchronized sweep algorithms for scalable scheduling constraints  | Yes | [318] | 2015 | Constraints An Int. J.             | 52    | 2        | 14      | 1243 | 1449 |
| NattafAL15 NattafAL15            | M. Nattaf, C. Artigues, P. Lopez  | A hybrid exact method for a scheduling problem with a continuous resource and energy constraints   | Yes | [379] | 2015 | Constraints An Int. J.             | 21    | 14       | 13      | 1264 | 1450 |
| Siala15 Siala15                  | M. Siala  | Search, propagation, and learning in sequencing and scheduling problems  | Yes | [455] | 2015 | Constraints An Int. J.             | 2     | 4        | 0       | 1296 | 1451 |
| SimoninAHL15<br>SimoninAHL15     | G. Simonin, C. Artigues, E. Hebrard, P. Lopez                               | Scheduling scientific experiments for comet exploration  | Yes | [459] | 2015 | Constraints An Int. J.             | 23    | 4        | 5       | 1297 | 1452 |
| WangMD15 WangMD15                | T. Wang, N. Meskens, D. Duvivier  | Scheduling operating theatres: Mixed integer programming vs. constraint programming  | Yes | [526] | 2015 | Eur. J. Oper. Res.                 | 13    | 36       | 33      | 1315 | 1453 |
| BlomBPS14<br>BlomBPS14           | Michelle L. Blom, Christina N. Burt, Adrian R. Pearce, Peter J. Stuckey     | A Decomposition-Based Heuristic for Collaborative Scheduling in a Network of Open-Pit Mines  | No  | [87]  | 2014 | INFORMS J. Comput.                 | 19    | 15       | 47      | No   | 1454 |
| BonfiettiLBM14<br>BonfiettiLBM14 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano                             | CROSS cyclic resource-constrained scheduling solver  | Yes | [96]  | 2014 | Artif. Intell.                     | 28    | 8        | 15      | 1185 | 1455 |
| GrimesIOS14<br>GrimesIOS14       | D. Grimes, G. Ifrim, B. O'Sullivan, H. Simonis                              | Analyzing the impact of electricity price forecasting on energy cost-aware scheduling  | Yes | [214] | 2014 | Sustain. Comput. Informatics Syst. | 16    | 6        | 7       | 1211 | 1456 |
| KameugneFSN14<br>KameugneFSN14   | R. Kameugne, Laure Pauline Fotso, Joseph D. Scott, Y. Ngo-Kateu             | A quadratic edge-finding filtering algorithm for cumulative resource constraints   | Yes | [275] | 2014 | Constraints An Int. J.             | 27    | 6        | 10      | 1229 | 1457 |
| Novash14 Novash14                | Juan M. Novas, Gabriela P. Henning  | Integrated scheduling of resource-constrained flexible manufacturing systems using constraint programming  | Yes | [391] | 2014 | Expert Syst. Appl.                 | 14    | 35       | 26      | 1271 | 1458 |
| TerekhovTDB14<br>TerekhovTDB14   | D. Terekhov, Tony T. Tran, Douglas G. Down, J. Christopher Beck             | Integrating Queueing Theory and Scheduling for Dynamic Scheduling Problems   | Yes | [480] | 2014 | J. Artif. Intell. Res.             | 38    | 12       | 0       | 1303 | 1459 |
| ThiruvadyWGS14<br>ThiruvadyWGS14 | Dhananjay R. Thiruvady, M. Wallace, H. Gu, A. Schutt                        | A Lagrangian relaxation and ACO hybrid for resource constrained project scheduling with discounted cash flows  | Yes | [484] | 2014 | J. Heuristics                      | 34    | 19       | 18      | 1304 | 1460 |

Table 5: Works from bibtex (Total 227)

| Key                                | Authors   | Title  | LC  | Cite  | Year | Conference /Journal             | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|---|--|-----|-------|------|---------------------------------|-------|----------|---------|------|------|
| BajestaniB13<br>BajestaniB13       | Maliheh Aramon Bajestani, J. Christopher Beck                                   | Scheduling a Dynamic Aircraft Repair Shop with Limited Repair Resources  | Yes | [32]  | 2013 | J. Artif. Intell. Res.          | 36    | 14       | 0       | 1160 | 1461 |
| BegB13 BegB13                      | Mirza Omer Beg, Peter van Beek  | A constraint programming approach for integrated spatial and temporal scheduling for clustered architectures                   | Yes | [64]  | 2013 | ACM Trans. Embed. Comput. Syst. | 23    | 1        | 28      | 1174 | 1462 |
| HeinzSB13 HeinzSB13                | S. Heinz, J. Schulz, J. Christopher Beck  | Using dual presolving reductions to reformulate cumulative constraints   | Yes | [239] | 2013 | Constraints An Int. J.          | 36    | 7        | 31      | 1220 | 1463 |
| OzturkTHO13<br>OzturkTHO13         | C. Öztürk, S. Tunali, B. Hnich, M. Arslan Ornek                                 | Balancing and scheduling of flexible mixed model assembly lines  | Yes | [400] | 2013 | Constraints An Int. J.          | 36    | 31       | 44      | 1274 | 1464 |
| SchuttFSW13<br>SchuttFSW13         | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace                          | Solving RCPSP/max by lazy clause generation  | Yes | [445] | 2013 | J. Sched.                       | 17    | 43       | 23      | 1293 | 1465 |
| HeinzSSW12<br>HeinzSSW12           | S. Heinz, T. Schlechte, R. Stephan, M. Winkler                                  | Solving steel mill slab design problems  | Yes | [237] | 2012 | Constraints An Int. J.          | 12    | 10       | 9       | 1221 | 1466 |
| LimtanyakulS12<br>LimtanyakulS12   | K. Limtanyakul, U. Schwiegelshohn   | Improvements of constraint programming and hybrid methods for scheduling of tests on vehicle prototypes                        | Yes | [325] | 2012 | Constraints An Int. J.          | 32    | 4        | 16      | 1245 | 1467 |
| LombardiM12<br>LombardiM12         | M. Lombardi, M. Milano  | Optimal methods for resource allocation and scheduling: a cross-disciplinary survey  | Yes | [337] | 2012 | Constraints An Int. J.          | 35    | 39       | 68      | 1247 | 1468 |
| LombardiM12a<br>LombardiM12a       | M. Lombardi, M. Milano  | A min-flow algorithm for Minimal Critical Set detection in Resource Constrained Project Scheduling                             | Yes | [336] | 2012 | Artif. Intell.                  | 10    | 3        | 13      | 1248 | 1469 |
| NovasH12 NovasH12                  | Juan M. Novas, Gabriela P. Henning  | A comprehensive constraint programming approach for the rolling horizon-based scheduling of automated wet-etch stations        | Yes | [390] | 2012 | Comput. Chem. Eng.              | 17    | 17       | 15      | 1270 | 1470 |
| TerekhovDOB12<br>TerekhovDOB12     | D. Terekhov, Mustafa K. Dogru, U. Özen, J. Christopher Beck                     | Solving two-machine assembly scheduling problems with inventory constraints  | No  | [479] | 2012 | Comput. Ind. Eng.               | 15    | 8        | 48      | No   | 1471 |
| BandaSC11 BandaSC11                | Maria García de la Banda, Peter J. Stuckey, G. Chu                              | Solving Talent Scheduling with Dynamic Programming   | No  | [144] | 2011 | INFORMS J. Comput.              | 18    | 24       | 17      | No   | 1472 |
| BartakS11 BartakS11                | R. Barták, Miguel A. Salido   | Constraint satisfaction for planning and scheduling problems   | Yes | [46]  | 2011 | Constraints An Int. J.          | 5     | 17       | 3       | 1165 | 1473 |
| BeckFW11 BeckFW11                  | J. Christopher Beck, T. K. Feng, J. Watson                                      | Combining Constraint Programming and Local Search for Job-Shop Scheduling  | Yes | [55]  | 2011 | INFORMS J. Comput.              | 14    | 43       | 23      | 1170 | 1474 |
| BeldiceanuCDP11<br>BeldiceanuCDP11 | N. Beldiceanu, M. Carlsson, S. Demasse, E. Poder                                | New filtering for the <i>cumulative</i> constraint in the context of non-overlapping rectangles                                | Yes | [69]  | 2011 | Ann. Oper. Res.                 | 24    | 8        | 8       | 1176 | 1475 |
| BeniniLMR11<br>BeniniLMR11         | L. Benini, M. Lombardi, M. Milano, M. Ruggiero                                  | Optimal resource allocation and scheduling for the CELL BE platform  | Yes | [78]  | 2011 | Ann. Oper. Res.                 | 27    | 18       | 16      | 1179 | 1476 |
| HachemiGR11<br>HachemiGR11         | Nizar El Hachemi, M. Gendreau, L. Rousseau                                      | A hybrid constraint programming approach to the log-truck scheduling problem   | Yes | [221] | 2011 | Ann. Oper. Res.                 | 16    | 32       | 19      | 1214 | 1477 |
| HeckmanB11<br>HeckmanB11           | I. Heckman, J. Christopher Beck   | Understanding the behavior of Solution-Guided Search for job-shop scheduling   | Yes | [234] | 2011 | J. Sched.                       | 20    | 0        | 22      | 1218 | 1478 |
| KelbelH11 KelbelH11                | J. Kelbel, Z. Hanzálek  | Solving production scheduling with earliness/tardiness penalties by constraint programming                                     | Yes | [278] | 2011 | J. Intell. Manuf.               | 10    | 12       | 14      | 1230 | 1479 |
| KovacsB11 KovacsB11                | A. Kovács, J. Christopher Beck  | A global constraint for total weighted completion time for unary resources   | Yes | [292] | 2011 | Constraints An Int. J.          | 24    | 4        | 26      | 1235 | 1480 |
| KovacsK11 KovacsK11                | A. Kovács, T. Kis   | Constraint programming approach to a bilevel scheduling problem  | Yes | [294] | 2011 | Constraints An Int. J.          | 24    | 3        | 24      | 1236 | 1481 |
| SchausHMCMD11<br>SchausHMCMD11     | P. Schaus, Pascal Van Hentenryck, J. Monette, C. Coffrin, L. Michel, Y. Deville | Solving Steel Mill Slab Problems with constraint-based techniques: CP, LNS, and CBLS   | Yes | [437] | 2011 | Constraints An Int. J.          | 23    | 14       | 5       | 1290 | 1482 |
| SchuttFSW11<br>SchuttFSW11         | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace                          | Explaining the cumulative propagator   | Yes | [444] | 2011 | Constraints An Int. J.          | 33    | 57       | 23      | 1292 | 1483 |
| TopalogluO11<br>TopalogluO11       | S. Topaloglu, I. Ozkarahan  | A constraint programming-based solution approach for medical resident scheduling problems                                      | Yes | [488] | 2011 | Comput. Oper. Res.              | 10    | 46       | 24      | 1306 | 1484 |
| TrojetHL11 TrojetHL11              | M. Trojet, F. H'Mida, P. Lopez  | Project scheduling under resource constraints: Application of the cumulative global constraint in a decision support framework | Yes | [500] | 2011 | Comput. Ind. Eng.               | 7     | 11       | 17      | 1309 | 1485 |

Table 5: Works from bibtex (Total 227)

| Key                              | Authors  | Title  | LC  | Cite  | Year | Conference /Journal                                   | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|--|--|-----|-------|------|---|-------|----------|---------|------|------|
| BartakCS10<br>BartakCS10         | R. Barták, O. Cepek, P. Surynek  | Discovering implied constraints in precedence graphs with alternatives   | Yes | [45]  | 2010 | Ann. Oper. Res.                                       | 31    | 2        | 9       | 1164 | 1486 |
| BartakSR10<br>BartakSR10         | R. Barták, Miguel A. Salido, F. Rossi  | New trends in constraint satisfaction, planning, and scheduling: a survey  | Yes | [47]  | 2010 | Knowl. Eng. Rev.                                      | 31    | 28       | 47      | 1166 | 1487 |
| HartmannB10<br>HartmannB10       | S. Hartmann, D. Briskorn   | A survey of variants and extensions of the resource-constrained project scheduling problem                                   | No  | [227] | 2010 | European Journal of Operational Research              | null  | 577      | 177     | No   | 1488 |
| LombardiM10a<br>LombardiM10a     | M. Lombardi, M. Milano   | Allocation and scheduling of Conditional Task Graphs   | Yes | [334] | 2010 | Artif. Intell.  | 30    | 8        | 24      | 1246 | 1489 |
| LopesCSM10<br>LopesCSM10         | Tony Minoru Tamura Lopes, André A. Ciré, Cid Carvalho de Souza, Arnaldo Vieira Moura | A hybrid model for a multiproduct pipeline planning and scheduling problem   | Yes | [339] | 2010 | Constraints An Int. J.                                | 39    | 31       | 18      | 1249 | 1490 |
| NovasH10<br>NovasH10             | Juan M. Novas, Gabriela P. Henning   | Reactive scheduling framework based on domain knowledge and constraint programming   | Yes | [389] | 2010 | Comput. Chem. Eng.                                    | 20    | 48       | 19      | 1269 | 1491 |
| ZeballosQH10<br>ZeballosQH10     | L. Zeballos, O. Quiroga, Gabriela P. Henning   | A constraint programming model for the scheduling of flexible manufacturing systems with machine and tool limitations        | Yes | [547] | 2010 | Eng. Appl. Artif. Intell.                             | 20    | 33       | 28      | 1324 | 1492 |
| abs-1009-0347<br>abs-1009-0347   | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace                               | Solving the Resource Constrained Project Scheduling Problem with Generalized Precedences by Lazy Clause Generation           | Yes | [443] | 2010 | CoRR  | 37    | 0        | 0       | 1330 | 1493 |
| BidotVLB09<br>BidotVLB09         | J. Bidot, T. Vidal, P. Laborie, J. Christopher Beck                                  | A theoretic and practical framework for scheduling in a stochastic environment   | Yes | [82]  | 2009 | J. Sched.   | 30    | 58       | 20      | 1181 | 1494 |
| BocewiczBB09<br>BocewiczBB09     | G. Bocewicz, I. Bach, Zbigniew Antoni Banaszak                                       | Logic-algebraic method based and constraints programming driven approach to AGVs scheduling                                  | Yes | [89]  | 2009 | Int. J. Intell. Inf. Database Syst.                   | 19    | 0        | 0       | 1183 | 1495 |
| GarridoAO09<br>GarridoAO09       | A. Garrido, M. Arangú, E. Onaindia   | A constraint programming formulation for planning: from plan scheduling to plan generation                                   | Yes | [185] | 2009 | J. Sched.   | 30    | 5        | 14      | 1205 | 1496 |
| Jans09<br>Jans09                 | Jans, Raf  | Solving Lot-Sizing Problems on Parallel Identical Machines Using Symmetry-Breaking Constraints                               | No  | [264] | 2009 | INFORMS Journal on Computing                          | null  | 59       | 73      | No   | 1497 |
| OhrimenkoSC09<br>OhrimenkoSC09   | O. Ohrimenko, Peter J. Stuckey, M. Codish  | Propagation via lazy clause generation   | Yes | [395] | 2009 | Constraints   | 35    | 127      | 15      | 1273 | 1498 |
| RuggieroBBMA09<br>RuggieroBBMA09 | M. Ruggiero, D. Bertozzi, L. Benini, M. Milano, A. Andrei                            | Reducing the Abstraction and Optimality Gaps in the Allocation and Scheduling for Variable Voltage/Frequency MPSoC Platforms | Yes | [432] | 2009 | IEEE Trans. Comput. Aided Des. Integr. Circuits Syst. | 14    | 9        | 27      | 1286 | 1499 |
| WuBB09<br>WuBB09                 | Christine Wei Wu, Kenneth N. Brown, J. Christopher Beck                              | Scheduling with uncertain durations: Modeling beta-robust scheduling with constraints  | No  | [536] | 2009 | Comput. Oper. Res.                                    | 9     | 42       | 5       | No   | 1500 |
| abs-0907-0939<br>abs-0907-0939   | T. Petit, E. Poder   | The Soft Cumulative Constraint   | Yes | [410] | 2009 | CoRR  | 12    | 0        | 0       | 1329 | 1501 |
| GarridoOS08<br>GarridoOS08       | A. Garrido, E. Onaindia, Óscar Sapena  | Planning and scheduling in an e-learning environment. A constraint-programming-based approach                                | Yes | [186] | 2008 | Eng. Appl. Artif. Intell.                             | 11    | 22       | 7       | 1206 | 1502 |
| KovacsB08<br>KovacsB08           | A. Kovács, J. Christopher Beck   | A global constraint for total weighted completion time for cumulative resources  | Yes | [291] | 2008 | Eng. Appl. Artif. Intell.                             | 7     | 5        | 14      | 1234 | 1503 |
| LiessM08<br>LiessM08             | O. Liess, P. Michelon  | A constraint programming approach for the resource-constrained project scheduling problem                                    | Yes | [320] | 2008 | Ann. Oper. Res.                                       | 12    | 22       | 14      | 1244 | 1504 |
| MalikMB08<br>MalikMB08           | Abid M. Malik, J. McInnes, Peter van Beek  | Optimal Basic Block Instruction Scheduling for Multiple-Issue Processors Using Constraint Programming                        | Yes | [353] | 2008 | Int. J. Artif. Intell. Tools                          | 18    | 15       | 8       | 1253 | 1505 |
| MercierH08<br>MercierH08         | L. Mercier, Pascal Van Hentenryck  | Edge Finding for Cumulative Scheduling   | No  | [361] | 2008 | INFORMS Journal on Computing                          | null  | 32       | 5       | No   | 1506 |
| Beck07<br>Beck07                 | J. Christopher Beck  | Solution-Guided Multi-Point Constructive Search for Job Shop Scheduling  | Yes | [53]  | 2007 | J. Artif. Intell. Res.                                | 29    | 34       | 0       | 1167 | 1507 |
| BeckW07<br>BeckW07               | J. Christopher Beck, N. Wilson   | Proactive Algorithms for Job Shop Scheduling with Probabilistic Durations  | Yes | [62]  | 2007 | J. Artif. Intell. Res.                                | 50    | 27       | 0       | 1172 | 1508 |
| Hooker07<br>Hooker07             | John N. Hooker   | Planning and Scheduling by Logic-Based Benders Decomposition   | No  | [253] | 2007 | Operations Re-search                                  | null  | 181      | 19      | No   | 1509 |

Table 5: Works from bibtex (Total 227)

| Key                              | Authors                                      | Title   | LC  | Cite  | Year  | Conference<br>/Journal                         | Pages                        | Nr<br>Cites | Nr<br>Refs | b    | c    |      |
|----------------------------------|--|---|---|-------|-------|--|------------------------------|-------------|------------|------|------|------|
| Rodriguez07<br>Rodriguez07       | J. Rodriguez                                 | A constraint programming model for real-time train scheduling at junctions  | Yes   | [430] | 2007  | Transportation Research Part B: Methodological | 15                           | 117         | 6          | 1284 | 1510 |      |
| Simonis07                        | Simonis07                                    | H. Simonis  | Models for Global Constraint Applications   | Yes   | [461] | 2007   | Constraints An Int. J.       | 30          | 10         | 17   | 1298 | 1511 |
| Hooker06                         | Hooker06                                     | John N. Hooker  | An Integrated Method for Planning and Scheduling to Minimize Tardiness  | Yes   | [252] | 2006   | Constraints An Int. J.       | 19          | 19         | 13   | 1224 | 1512 |
| KhayatLR06<br>KhayatLR06         | Ghada El Khayat, A. Langevin, D. Riopel      | Integrated production and material handling scheduling using mathematical programming and constraint programming                        | Yes   | [280] | 2006  | Eur. J. Oper. Res.                             | 15                           | 84          | 14         | 1231 | 1513 |      |
| SadykovW06<br>SadykovW06         | R. Sadykov, Laurence A. Wolsey               | Integer Programming and Constraint Programming in Solving a Multimachine Assignment Scheduling Problem with Deadlines and Release Dates | Yes   | [435] | 2006  | INFORMS J. Comput.                             | 9                            | 45          | 6          | 1288 | 1514 |      |
| SureshMOK06<br>SureshMOK06       | S. Sundaram, V. Mani, S. N. Omkar, H. J. Kim | Divisible load scheduling in distributed system with buffer constraints: genetic algorithm and linear programming approach              | Yes   | [468] | 2006  | Int. J. Parallel Emergent Distributed Syst.    | 19                           | 12          | 23         | 1301 | 1515 |      |
| Hooker05                         | Hooker05                                     | John N. Hooker  | A Hybrid Method for the Planning and Scheduling   | Yes   | [250] | 2005   | Constraints An Int. J.       | 17          | 68         | 11   | 1223 | 1516 |
| VilimBC05                        | VilimBC05                                    | P. Vilím, R. Barták, O. Cepek   | Extension of $O(n \log n)$ Filtering Algorithms for the Unary Resource Constraint to Optional Activities                | Yes   | [517] | 2005   | Constraints An Int. J.       | 23          | 21         | 5    | 1311 | 1517 |
| ZeballosH05<br>ZeballosH05       | L. Zeballos, Gabriela P. Henning             | A Constraint Programming Approach to FMS Scheduling. Consideration of Storage and Transportation Resources                              | Yes   | [546] | 2005  | Inteligencia Artif.                            | 10                           | 0           | 0          | 1323 | 1518 |      |
| PoderBS04                        | PoderBS04                                    | E. Poder, N. Beldiceanu, E. Sanlaville  | Computing a lower approximation of the compulsory part of a task with varying duration and varying resource consumption | Yes   | [412] | 2004   | Eur. J. Oper. Res.           | 16          | 7          | 8    | 1277 | 1519 |
| BeckR03                          | BeckR03                                      | J. Christopher Beck, P. Refalo  | A Hybrid Approach to Scheduling with Earliness and Tardiness Costs  | Yes   | [59]  | 2003   | Ann. Oper. Res.              | 23          | 29         | 0    | 1171 | 1520 |
| HookerO03                        | HookerO03                                    | John N. Hooker, G. Ottosson   | Logic-based Benders decomposition   | No    | [256] | 2003   | Mathematical Programming     | null        | 317        | 0    | No   | 1521 |
| KuchcinskiW03<br>KuchcinskiW03   | K. Kuchcinski, C. Wolinski                   | Global approach to assignment and scheduling of complex behaviors based on HCDG and constraint programming                              | Yes   | [302] | 2003  | J. Syst. Archit.                               | 15                           | 19          | 18         | 1238 | 1522 |      |
| Laborie03                        | Laborie03                                    | P. Laborie  | Algorithms for propagating resource constraints in AI planning and scheduling: Existing approaches and new results      | Yes   | [305] | 2003   | Artificial Intelligence      | 38          | 128        | 10   | 1239 | 1523 |
| Tsang03                          | Tsang03                                      | Edward P. K. Tsang  | Constraint Based Scheduling: Applying Constraint Programming to Scheduling Problems                                     | Yes   | [501] | 2003   | J. Sched.                    | 2           | 1          | 0    | 1310 | 1524 |
| HarjunkoskiG02<br>HarjunkoskiG02 | I. Harjunkoski, Ignacio E. Grossmann         | Decomposition techniques for multistage scheduling problems using mixed-integer and constraint programming methods                      | No  | [226] | 2002  | Computers Chemical Engineering                 | null                         | 169         | 11         | No   | 1525 |      |
| LorigeonBB02<br>LorigeonBB02     | T. Lorigeon, J. Billaut, J. Bouquard         | A dynamic programming algorithm for scheduling jobs in a two-machine open shop with an availability constraint                          | Yes   | [341] | 2002  | J. Oper. Res. Soc.                             | 8                            | 22          | 0          | 1251 | 1526 |      |
| RodriguezDG02<br>RodriguezDG02   | J. Rodriguez, X. Delorme, X. Gandibleux      | Railway infrastructure saturation using constraint programming approach   | Yes   | [429] | 2002  | Computers in Railways VIII                     | 10                           | 0           | 0          | 1285 | 1527 |      |
| Timpe02                          | Timpe02                                      | C. Timpe  | Solving planning and scheduling problems with combined integer and constraint programming                               | Yes   | [486] | 2002   | OR Spectr.                   | 18          | 42         | 0    | 1305 | 1528 |
| JainG01                          | JainG01                                      | V. Jain, Ignacio E. Grossmann   | Algorithms for Hybrid MILP/CP Models for a Class of Optimization Problems   | No    | [263] | 2001   | INFORMS Journal on Computing | null        | 279        | 23   | No   | 1529 |
| MartinPY01<br>MartinPY01         | F. Martin, A. Pinkney, X. Yu                 | Cane Railway Scheduling via Constraint Logic Programming: Labelling Order and Constraints in a Real-Life Application                    | Yes   | [355] | 2001  | Ann. Oper. Res.                                | 17                           | 11          | 0          | 1254 | 1530 |      |

Table 5: Works from bibtex (Total 227)

| Key                                    | Authors  | Title   | LC  | Cite  | Year | Conference /Journal                      | Pages | Nr Cites | Nr Refs | b    | c    |
|--|--|---|-----|-------|------|--|-------|----------|---------|------|------|
| Mason01 Mason01                        | Andrew J. Mason  | Elastic Constraint Branching, the Wedelin/Carmen Lagrangian Heuristic and Integer Programming for Personnel Scheduling              | Yes | [356] | 2001 | Ann. Oper. Res.                          | 38    | 5        | 0       | 1255 | 1531 |
| ArtiguesR00<br>ArtiguesR00             | C. Artigues, F. Roubellat  | A polynomial activity insertion algorithm in a multi-resource schedule with cumulative constraints and multiple modes               | Yes | [23]  | 2000 | Eur. J. Oper. Res.                       | 20    | 84       | 3       | 1157 | 1532 |
| BaptisteP00<br>BaptisteP00             | P. Baptiste, Claude Le Pape  | Constraint Propagation and Decomposition Techniques for Highly Disjunctive and Highly Cumulative Project Scheduling Problems        | Yes | [38]  | 2000 | Constraints An Int. J.                   | 21    | 46       | 0       | 1163 | 1533 |
| BeckF00 BeckF00                        | J. Christopher Beck, Mark S. Fox                                     | Dynamic problem structure analysis as a basis for constraint-directed scheduling heuristics   | Yes | [57]  | 2000 | Artif. Intell.                           | 51    | 24       | 19      | 1168 | 1534 |
| HeipckeCCS00<br>HeipckeCCS00           | S. Heipcke, Y. Colombani, Cristina C. B. Cavalcante, Cid C. de Souza | Scheduling under Labour Resource Constraints  | Yes | [242] | 2000 | Constraints An Int. J.                   | 8     | 5        | 0       | 1222 | 1535 |
| KorbaaYG00<br>KorbaaYG00               | O. Korbaa, P. Yim, J. Gentina  | Solving Transient Scheduling Problems with Constraint Programming   | Yes | [288] | 2000 | Eur. J. Control                          | 10    | 7        | 4       | 1233 | 1536 |
| LopezAKYG00<br>LopezAKYG00             | P. Lopez, H. Alla, O. Korbaa, P. Yim, J. Gentina                     | Discussion on: 'Solving Transient Scheduling Problems with Constraint Programming' by O. Korbaa, P. Yim, and J.-C. Gentina          | Yes | [340] | 2000 | Eur. J. Control                          | 4     | 0        | 0       | 1250 | 1537 |
| SakkoutW00<br>SakkoutW00               | Hani El Sakkout, M. Wallace  | Probe Backtrack Search for Minimal Perturbation in Dynamic Scheduling   | Yes | [436] | 2000 | Constraints An Int. J.                   | 30    | 73       | 0       | 1289 | 1538 |
| SchildW00 SchildW00                    | K. Schild, J. Würtz  | Scheduling of Time-Triggered Real-Time Systems  | Yes | [438] | 2000 | Constraints An Int. J.                   | 23    | 23       | 0       | 1291 | 1539 |
| SourdN00 SourdN00                      | F. Sourd, W. Nuijten   | Multiple-Machine Lower Bounds for Shop-Scheduling Problems  | Yes | [463] | 2000 | INFORMS J. Comput.                       | 12    | 7        | 14      | 1299 | 1540 |
| TorresL00 TorresL00                    | P. Torres, P. Lopez  | On Not-First/Not-Last conditions in disjunctive scheduling  | No  | [489] | 2000 | European Journal of Operational Research | null  | 26       | 13      | No   | 1541 |
| BensanaLV99<br>BensanaLV99             | E. Bensana, M. Lemaître, G. Verfaillie                               | Earth Observation Satellite Management  | Yes | [79]  | 1999 | Constraints An Int. J.                   | 7     | 99       | 0       | 1180 | 1542 |
| BruckerDMNP99<br>BruckerDMNP99         | P. Brucker, A. Drexler, R. Möhring, K. Neumann, E. Pesch             | Resource-constrained project scheduling: Notation, classification, models, and methods  | No  | [109] | 1999 | European Journal of Operational Research | null  | 990      | 137     | No   | 1543 |
| BeckF98 BeckF98                        | J. Christopher Beck, Mark S. Fox                                     | A Generic Framework for Constraint-Directed Search and Scheduling   | Yes | [56]  | 1998 | AI Mag.                                  | 30    | 0        | 0       | 1169 | 1544 |
| BelhadjiI98 BelhadjiI98                | S. Belhadji, A. Isli   | Temporal Constraint Satisfaction Techniques in Job Shop Scheduling Problem Solving  | Yes | [72]  | 1998 | Constraints An Int. J.                   | 9     | 3        | 0       | 1177 | 1545 |
| NuijtenP98 NuijtenP98                  | W. Nuijten, Claude Le Pape   | Constraint-Based Job Shop Scheduling with \sc Ilog Scheduler  | Yes | [393] | 1998 | J. Heuristics                            | 16    | 42       | 0       | 1272 | 1546 |
| PapaB98 PapaB98                        | Claude Le Pape, P. Baptiste  | Resource Constraints for Preemptive Job-shop Scheduling   | Yes | [404] | 1998 | Constraints An Int. J.                   | 25    | 14       | 0       | 1276 | 1547 |
| Darby-DowmanLMZ97<br>Darby-DowmanLMZ97 | K. Darby-Dowman, J. Little, G. Mitra, M. Zaffalon                    | Constraint Logic Programming and Integer Programming Approaches and Their Collaboration in Solving an Assignment Scheduling Problem | Yes | [138] | 1997 | Constraints An Int. J.                   | 20    | 28       | 5       | 1194 | 1548 |
| FalaschiGMP97<br>FalaschiGMP97         | M. Falaschi, M. Gabbriellini, K. Marriott, C. Palamidessi            | Constraint Logic Programming with Dynamic Scheduling: A Semantics Based on Closure Operators  | Yes | [169] | 1997 | Inf. Comput.                             | 27    | 10       | 9       | 1200 | 1549 |
| KolischS97 KolischS97                  | R. Kolisch, A. Sprecher  | PSPLIB - A project scheduling problem library   | No  | [286] | 1997 | European Journal of Operational Research | null  | 840      | 18      | No   | 1550 |
| LammaMM97<br>LammaMM97                 | E. Lamma, P. Mello, M. Milano  | A distributed constraint-based scheduler  | Yes | [312] | 1997 | Artif. Intell. Eng.                      | 15    | 11       | 7       | 1242 | 1551 |
| Zhou97 Zhou97                          | J. Zhou  | A Permutation-Based Approach for Solving the Job-Shop Problem   | Yes | [554] | 1997 | Constraints An Int. J.                   | 29    | 14       | 0       | 1327 | 1552 |
| Wallace96 Wallace96                    | M. Wallace   | Practical Applications of Constraint Programming  | Yes | [522] | 1996 | Constraints An Int. J.                   | 30    | 87       | 55      | 1313 | 1553 |

Table 5: Works from bibtex (Total 227)

| Key                            | Authors  | Title   | LC  | Cite  | Year | Conference<br>/Journal                           | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|--------------------------------|--|---|-----|-------|------|--|-------|-------------|------------|------|------|
| BeldiceanuC94<br>BeldiceanuC94 | N. Beldiceanu, E. Contejean                              | Introducing Global Constraints in CHIP  | Yes | [67]  | 1994 | Mathematical and<br>Computer Mod-<br>elling      | 27    | 167         | 8          | 1175 | 1554 |
| CarlierP94 CarlierP94          | J. Carlier, E. Pinson                                    | Adjustment of heads and tails for the job-shop<br>problem   | No  | [119] | 1994 | European Jour-<br>nal of Operational<br>Research | null  | 151         | 10         | No   | 1555 |
| Pape94 Pape94                  | Claude Le Pape   | Implementation of resource constraints in ILOG<br>SCHEDULE: a library for the development of<br>constraint-based scheduling systems | No  | [402] | 1994 | Intelligent Systems<br>Engineering               | 1     | 98          | 0          | No   | 1556 |
| AggounB93 AggounB93            | A. Aggoun, N. Beldiceanu                                 | Extending CHIP in order to solve complex<br>scheduling and placement problems   | Yes | [7]   | 1993 | Mathematical and<br>Computer Mod-<br>elling      | 17    | 187         | 11         | 1154 | 1557 |
| Taillard93 Taillard93          | E. Taillard  | Benchmarks for basic scheduling problems  | No  | [471] | 1993 | European Jour-<br>nal of Operational<br>Research | null  | 1568        | 6          | No   | 1558 |
| Tay92 Tay92                    | David B. H. Tay  | COPS: A Constraint Programming Approach to<br>Resource-Limited Project Scheduling   | No  | [477] | 1992 | Comput. J.                                       | null  | 0           | 0          | No   | 1559 |
| ApplegateC91<br>ApplegateC91   | D. Applegate, W. Cook                                    | A Computational Study of the Job-Shop Scheduling<br>Problem   | No  | [16]  | 1991 | ORSA Journal on<br>Computing                     | null  | 536         | 0          | No   | 1560 |
| DechterMP91<br>DechterMP91     | R. Dechter, I. Meiri, J. Pearl                           | Temporal constraint networks  | No  | [145] | 1991 | Artificial Intelli-<br>gence                     | null  | 879         | 28         | No   | 1561 |
| CarlierP90 CarlierP90          | J. Carlier, E. Pinson                                    | A practical use of Jackson's preemptive schedule for<br>solving the job shop problem  | No  | [118] | 1990 | Annals of Opera-<br>tions Research               | null  | 112         | 11         | No   | 1562 |
| DincbasSH90<br>DincbasSH90     | M. Dincbas, H. Simonis, Pascal Van Hentenryck            | Solving Large Combinatorial Problems in Logic<br>Programming  | Yes | [156] | 1990 | J. Log. Program.                                 | 19    | 86          | 9          | 1195 | 1563 |
| CarlierP89 CarlierP89          | J. Carlier, E. Pinson                                    | An Algorithm for Solving the Job-Shop Problem   | No  | [117] | 1989 | Management Sci-<br>ence                          | null  | 516         | 0          | No   | 1564 |
| AdamsBZ88<br>AdamsBZ88         | J. Adams, E. Balas, D. Zawack                            | The Shifting Bottleneck Procedure for Job Shop<br>Scheduling  | No  | [6]   | 1988 | Management Sci-<br>ence                          | null  | 1054        | 0          | No   | 1565 |
| BlazewiczLK83<br>BlazewiczLK83 | J. Blazewicz, Jan Karel Lenstra, A. H. G.<br>Rinnooy Kan | Scheduling subject to resource constraints:<br>classification and complexity  | Yes | [86]  | 1983 | Discret. Appl.<br>Math.                          | 14    | 947         | 6          | 1182 | 1566 |
| Benders62 Benders62            | Jacques F. Benders                                       | Partitioning procedures for solving mixed-variables<br>programming problems   | No  | [74]  | 1962 | Numerische Mathe-<br>matik                       | null  | 2583        | 6          | No   | 1567 |

## 3.2 Extracted Concepts

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work               | Pages | Concepts   | Classification   | Constraints                                    | Prog Languages | CP Systems | Areas                             | Industries   | Benchmarks                                | Algorithm    | a    | c    |
|--------------------|-------|--|--|--|----------------|------------|-----------------------------------|--------------|---|--------------|------|------|
| AbohashimaEG21 [2] | 14    | scheduling, order, resource, setup-time, cmax, machine, transportation   | parallel machine   | cycle  | Python         | Gurobi     |                                   |              | real-world, generated instance, github    |              | 958  | 1376 |
| AbreuAPNM21 [141]  | 21    | scheduling, completion-time, make-span, open-shop, order, setup-time, job, resource, task, machine, preempt, multi-agent, release-date, job-shop, distributed, cmax, tardiness, precedence, flow-shop                    | OSSP, single machine, Open Shop Scheduling Problem, parallel machine | noOverlap, cycle                               | Python, C++    | OZ, Cplex  | automotive, medical, patient      | oil industry | generated instance, benchmark, real-world |              | 959  | 1377 |
| AbreuN22 [142]     | 20    | preempt, make-span, transportation, order, tardiness, inventory, scheduling, flow-time, distributed, resource, completion-time, machine, setup-time, job, job-shop, task, flow-shop, open-shop, batch process, cmax      | single machine, Open Shop Scheduling Problem, OSSP                   | noOverlap, cycle, cumulative                   | Python         | OZ, Cplex  | medical                           |              | real-world, benchmark                     |              | 942  | 1360 |
| AbreuNP23 [143]    | 20    | scheduling, make-span, order, cmax, completion-time, machine, tardiness, job, earliness, setup-time, preempt, transportation, open-shop, distributed, job-shop, flow-shop, resource                                      | parallel machine, Open Shop Scheduling Problem, OSSP                 | noOverlap                                      | Python         | Cplex, OPL | medical                           | oil industry | real-world, benchmark                     | time-tabling | 925  | 1343 |
| AggounB93 [7]      | 17    | task, machine, precedence, order, job, activity, due-date, job-shop, flow-shop, resource, scheduling   |  | circuit, bin-packing, dis-junctive, cumulative | Prolog         | OPL, CHIP  | perfect-square, rectangle-packing |              | real-world                                |              | 1139 | 1557 |
| AkramNHRSA23 [9]   | 16    | resource, completion-time, preempt, scheduling, order, machine, task, distributed  |  | cycle, bin-packing                             | Python         | OR-Tools   | medical, agriculture              |              | benchmark                                 |              | 927  | 1345 |
| AlfieriGPS23 [11]  | 13    | setup-time, order, tardiness, flow-shop, job, make-span, distributed, flow-time, completion-time, job-shop, resource, precedence, earliness, scheduling, machine, inventory, transportation                              | single machine, parallel machine                                     |  | Java           | Cplex      | surgery, patient                  |              | benchmark                                 |              | 928  | 1346 |
| ArtiguesR00 [23]   | 20    | no preempt, machine, preempt, release-date, job-shop, transportation, cmax, lateness, precedence, scheduling, completion-time, re-scheduling, make-span, resource, order, setup-time, job, activity, earliness, due-date | RCPSP  | cycle, cumulative, disjunctive                 |                | OZ         |                                   |              |   |              | 1114 | 1532 |



Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work              | Pages | Concepts   | Classification   | Constraints                      | Prog Languages | CP Systems                   | Areas                         | Industries   | Benchmarks                             | Algorithm                                      | a    | c    |
|-------------------|-------|--|--|----------------------------------|----------------|------------------------------|-------------------------------|--|--|--|------|------|
| AstrandJZ20 [28]  | 13    | resource, open-shop, task, machine, precedence, flow-shop, job-shop, re-scheduling, make-span, order, setup-time, job, activity, scheduling, completion-time, due-date   | parallel machine   | alldifferent, disjunctive, cycle | C++            | OZ, Gecode                   | robot                         | potash industry, mining industry, mineral industry | benchmark, real-world, real-life       |  | 971  | 1389 |
| BadicaBI20 [29]   | 17    | machine, activity, make-span, manpower, completion-time, resource, precedence, scheduling, distributed, task, order  | psplib   | bin-packing, cycle               | Prolog         | Gecode, ECLiPSe              |                               |  | real-world, benchmark                  |  | 972  | 1390 |
| BajestaniB13 [32] | 36    | precedence, earliness, job-shop, resource, setup-time, preempt, scheduling, machine, inventory, transportation, due-date, order, tardiness, job, make-span, re-scheduling  | single machine, parallel machine                               | cumulative, alwaysIn, circuit    |                | OZ, Cplex                    | railway, aircraft             |  |  |  | 1043 | 1461 |
| BajestaniB15 [33] | 16    | precedence, completion-time, sequence dependent setup, job-shop, resource, activity, setup-time, preempt, scheduling, machine, due-date, distributed, flow-time, order, tardiness, flow-shop, job, make-span   | single machine   | disjunctive, cumulative, circuit |                | OZ, Cplex                    | railway, semiconductor, robot |  | real-world                             |  | 1026 | 1444 |
| BaptisteB18 [35]  | 10    | resource, task, machine, preempt, manpower, lazy clause generation, precedence, scheduling, make-span, order, job  | parallel machine, RCPSP, psplib                                | cumulative, bin-packing          |                | CHIP                         |                               |  |  | time-tabling, edge-finding, edge-finder        | 997  | 1415 |
| BaptisteP00 [38]  | 21    | resource, task, preempt, cmax, precedence, release-date, flow-shop, job-shop, scheduling, re-scheduling, make-span, order, job, activity, due-date   | RCPSP  | disjunctive, cumulative          | C++            | Claire, Ilog Scheduler, CHIP |                               |  | benchmark                              | edge-finding, edge-finder, energetic reasoning | 1115 | 1533 |
| BartakCS10 [45]   | 31    | resource, setup-time, task, job-shop, scheduling, machine, activity, flow-shop, order, job, precedence   | RCPSP  | disjunctive                      | Prolog         | SICStus                      |                               |  | benchmark, real-life, real-world       |  | 1068 | 1486 |
| BartakS11 [46]    | 5     | distributed, resource, scheduling, task, multi-agent, order  |  | cumulative                       |                | OPL                          |                               |  | random instance, real-world, real-life |  | 1055 | 1473 |
| BartakSR10 [47]   | 31    | scheduling, machine, preempt, activity, flow-shop, order, temporal constraint reasoning, completion-time, make-span, cmax, job, precedence, release-date, open-shop, distributed, tardiness, resource, task, lateness, job-shop, multi-agent, due-date | TCSP, single machine, Temporal Constraint Satisfaction Problem | cumulative, disjunctive          |                | CPO, Choco Solver, OPL       | robot                         |  | real-life, real-world                  | edge-finding, not-last, sweep, not-first       | 1069 | 1487 |
| Beck07 [53]       | 29    | flow-shop, order, scheduling, precedence, make-span, machine, resource, job, job-shop, tardiness, activity   |  | disjunctive                      |                | Ilog Scheduler               |                               |  | benchmark                              |  | 1089 | 1507 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                 | Pages | Concepts  | Classification                   | Constraints  | Prog Languages | CP Systems                         | Areas                             | Industries | Benchmarks                       | Algorithm                                | a    | c    |
|----------------------|-------|---|----------------------------------|--|----------------|------------------------------------|-----------------------------------|------------|----------------------------------|--|------|------|
| BeckF00 [57]         | 51    | precedence, release-date, resource, job-shop, due-date, preempt, machine, task, job, activity, order, inventory, make-span, scheduling, transportation  | single machine                   | cumulative, disjunctive                                      |                |                                    | robot                             |            | real-world, benchmark            | not-last, edge-finding, not-first        | 1116 | 1534 |
| BeckF98 [56]         | 30    | precedence, release-date, resource, job-shop, due-date, preempt, machine, task, tardiness, multi-agent, re-scheduling, job, activity, order, distributed, inventory, make-span, scheduling          | single machine                   | circuit, cumulative, disjunctive                             | Prolog         |                                    | robot                             |            | real-world, benchmark            | edge-finding                             | 1126 | 1544 |
| BeckFW11 [55]        | 14    | order, cmax, scheduling, resource, completion-time, machine, job, job-shop, precedence, preempt, make-span  |                                  | disjunctive, table constraint, cumulative                    | C++            | Ilog Scheduler                     |                                   |            | real-world, benchmark            |  | 1056 | 1474 |
| BeckR03 [59]         | 23    | release-date, resource, job-shop, due-date, machine, tardiness, re-scheduling, job, completion-time, activity, order, inventory, earliness, make-span, scheduling, flow-shop, flow-time, precedence |                                  | disjunctive  |                | Ilog Solver, Cplex, Ilog Scheduler | hoist                             |            | benchmark                        | edge-finder                              | 1102 | 1520 |
| BeckW07 [62]         | 50    | job-shop, preempt, machine, task, tardiness, re-scheduling, job, activity, order, distributed, make-span, scheduling, flow-shop, flow-time, precedence, no preempt, resource                        | single machine, RCPSP            |  |                | Ilog Scheduler                     | robot                             |            | benchmark                        | edge-finder, edge-finding                | 1090 | 1508 |
| Bedhief21 [63]       | 7     | setup-time, preempt, no preempt, sequence dependent setup, due-date, transportation, flow-shop, scheduling, make-span, completion-time, machine, job, order, release-date, tardiness                | single machine, parallel machine | noOverlap  |                | OZ, Cplex, OPL                     | robot, medical                    |            | real-life                        |  | 960  | 1378 |
| BegB13 [64]          | 23    | scheduling, re-scheduling, machine, resource, task, completion-time, order, distributed   | TMS                              | cycle  |                |                                    | pipeline                          |            | benchmark                        |  | 1044 | 1462 |
| BeldiceanuC94 [67]   | 27    | order, completion-time, scheduling, machine, task, precedence, resource   |                                  | circuit, cumulative, diffn, alldifferent, cycle, bin-packing | Prolog         | CPO, OPL, CHIP, OZ                 | pipeline, car manufacturing       |            | real-world, real-life, benchmark |  | 1136 | 1554 |
| BeldiceanuCDP11 [69] | 24    | cmax, preempt, resource, task, order, scheduling  |                                  | diffn, geost, disjunctive, cumulative, bin-packing           | Prolog         | SICStus, CHIP                      | rectangle-packing, perfect-square |            | benchmark                        | edge-finding, sweep, energetic reasoning | 1057 | 1475 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                 | Pages | Concepts  | Classification                                       | Constraints                             | Prog Languages | CP Systems                    | Areas                           | Industries | Benchmarks   | Algorithm                 | a    | c    |
|----------------------|-------|---|--|---|----------------|-------------------------------|---------------------------------|------------|--|---------------------------|------|------|
| BelhadjiI98 [72]     | 9     | precedence, release-date, job-shop, order, job, scheduling, resource, task, machine, preempt, due-date  | Temporal Constraint Satisfaction Problem, TCSP, JSSP | disjunctive                             |                |                               |                                 |            | real-life  |                           | 1127 | 1545 |
| BenediktMH20 [75]    | 19    | preempt, order, job, re-scheduling, task, job-shop, scheduling, machine   | single machine                                       | noOverlap, end-BeforeStart              |                | Gurobi                        | robot                           |            | github, benchmark, random instance, generated instance         |                           | 973  | 1391 |
| BeniniLMR11 [78]     | 27    | resource, order, activity, task, machine, preempt, release-date, tardiness, precedence, scheduling, re-scheduling, make-span  | SCC, single machine                                  | table constraint, cumulative, circuit   |                | Ilog Scheduler, Cplex, OZ     | pipeline                        |            | benchmark, real-world, instance generator                      |                           | 1058 | 1476 |
| BensanaLV99 [79]     | 7     | order   |  | cycle                                   |                | Cplex, Ilog Solver            | satellite, earth observation    |            | benchmark  |                           | 1124 | 1542 |
| BidotVLB09 [82]      | 30    | task, order, job-shop, due-date, machine, activity, make-span, re-scheduling, resource, inventory, job, precedence, release-date, scheduling, distributed, tardiness                      | JSSP   | cumulative, disjunctive                 | C++            | Ilog Scheduler, OPL           | robot                           |            | real-world, real-life  | edge-finder, edge-finding | 1076 | 1494 |
| BlazewiczLK83 [86]   | 14    | job, order, due-date, completion-time, no preempt, preempt, scheduling, machine, task, lateness, job-shop, precedence, release-date, cmax, open-shop, flow-shop, resource, transportation |  |   |                | OZ                            |                                 |            |  |                           | 1148 | 1566 |
| BocewiczBB09 [89]    | 19    | job-shop, resource, multi-agent, precedence, scheduling, machine, transportation, order, tardiness, job, task, distributed, completion-time   |  | cycle                                   |                | OZ                            | robot                           |            |  | not-last                  | 1077 | 1495 |
| Bonfietti16 [93]     | 13    | order, activity, scheduling, resource, task, distributed, precedence  |  | disjunctive, cumulative, circuit        | C++            | OZ                            | pipeline                        |            | benchmark  |                           | 1017 | 1435 |
| BonfiettiLBM14 [96]  | 28    | buffer-capacity, scheduling, order, job, resource, make-span, activity, distributed, machine, precedence, task, job-shop  | RCPSP  | circuit, cumulative, cycle              |                | Ilog Solver                   | pipeline, hoist, robot, medical |            | real-world, generated instance, industrial instance, benchmark | time-tabling, sweep       | 1037 | 1455 |
| BorghesiBLMB18 [102] | 13    | job, re-scheduling, make-span, resource, distributed, activity, task, machine, scheduling, order  |  | cumulative, cycle                       |                |                               | super-computer                  |            | benchmark, real-life   |                           | 998  | 1416 |
| BourreauGGLT22 [105] | 19    | re-scheduling, scheduling, order, manpower, job, resource, precedence, transportation   |  | disjunctive, alldifferent, diffn, cycle | C++            | OZ, Choco Solver, Cplex, CHIP | crew-scheduling, nurse          |            | real-world, benchmark  |                           | 943  | 1361 |
| BridiBLMB16 [107]    | 14    | re-scheduling, make-span, job, scheduling, resource, order, machine, activity, distributed, tardiness   |  | cycle, cumulative, circuit              |                | OZ                            | medical, super-computer         |            | real-world, real-life  |                           | 1018 | 1436 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                     | Pages | Concepts  | Classification  | Constraints   | Prog Languages | CP Systems                          | Areas   | Industries   | Benchmarks   | Algorithm   | a    | c    |
|--------------------------|-------|---|---|---|----------------|-------------------------------------|---|--|--|---|------|------|
| Caballero23 [112]        | 1     | resource, scheduling  | RCPSP   |   |                |                                     |   |  |  |   | 929  | 1347 |
| CampeauG22 [113]         | 18    | task, order, activity, make-span, completion-time, precedence, resource, job, scheduling  | RCPSP, RCPSPDC  | alwaysIn, noOverlap, endBeforeStart, cumulative, cycle                | Python         | Cplex, OZ                           |   | mining industry  | real-life, real-world  | edge-finding  | 944  | 1362 |
| CauwelaertLS18 [122]     | 36    | scheduling, order, job, resource, activity, machine, task, job-shop   | psplib, RCPSP   | circuit, differnt, packing, disjunctive, cumulative, table constraint | Java, Prolog   | OZ, OPL, Gecode, CHIP               |   |  | bitbucket, benchmark   | energetic reasoning, not-last, edge-finding, time-tabling, not-first, sweep | 999  | 1417 |
| ColT22 [134]             | 19    | no preempt, tardiness, task, order, transportation, due-date, flow-shop, completion-time, distributed, preempt, scheduling, precedence, make-span, machine, batch process, resource, job, open-shop, job-shop, lateness, setup-time | single machine, PMSP, Open Shop Scheduling Problem, FJS, JSSP, OSSP, parallel machine | alldifferent, cumulative, noOverlap, circuit, disjunctive             | Java, C++      | MiniZinc, CPO, OR-Tools, Cplex, OPL | robot, semiconductor, oven scheduling   |  | generated instance, supplementary material, github, real-life, benchmark, real-world |   | 945  | 1363 |
| CzerniachowskaWZ23 [136] | 14    | setup-time, transportation, flow-shop, machine, activity, order, completion-time, task, job, resource, job-shop, make-span, scheduling  | PTC, JSSP, parallel machine   | endBeforeStart, noOverlap   |                | OPL, OZ, Cplex, CPO                 | automotive, robot   | manufacturing industry, pharmaceutical industry, automotive industry | benchmark, Roadeff, real-world   |   | 930  | 1348 |
| Darby-DowmanLMZ97 [138]  | 20    | machine, scheduling, order, task, make-span, resource   | MGAP, single machine  | span constraint, disjunctive  | Prolog         | Cplex, ECLiPSe                      | pipeline, aircraft  |  | real-life, real-world, benchmark   |   | 1130 | 1548 |
| DincbasSH90 [156]        | 19    | task, machine, job-shop, distributed, precedence, scheduling, resource, order, job  |   | circuit, disjunctive  | Prolog         | CHIP, OPL                           |   |  | real-life  |   | 1145 | 1563 |
| DoulabiRP16 [159]        | 17    | scheduling, resource, machine, distributed, transportation, order   | single machine  | cycle, bin-packing  |                | OPL, Cplex                          | surgery, nurse, operating room, medical, patient, steel mill, rectangle-packing, crew-scheduling, robot |  | real-world, generated instance   |   | 1019 | 1437 |
| EscobetPQPRA19 [165]     | 10    | task, job-shop, release-date, scheduling, order, batch process, job, resource, activity, distributed, machine, due-date   |   | alternative constraint, noOverlap, circuit, cycle                     |                | OPL, Cplex                          | energy-price, dairy   | food industry, manufacturing industry                                |  |   | 986  | 1404 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                | Pages | Concepts  | Classification                         | Constraints                           | Prog Languages | CP Systems                 | Areas  | Industries             | Benchmarks                 | Algorithm  | a    | c    |
|---------------------|-------|---|--|---------------------------------------|----------------|----------------------------|--|------------------------|----------------------------|--|------|------|
| EvenSH15a [167]     | 16    | preempt, distributed, transportation, resource, scheduling, completion-time, task, machine, order   |  | disjunctive, cumulative               | Java           | Choco Solver, OPL          | emergency service  |                        | real-world, real-life      | sweep  | 1027 | 1445 |
| FahimiOQ18 [168]    | 22    | completion-time, resource, job, precedence, batch process, lazy clause generation, open-shop, scheduling, distributed, setup-time, task, order, lateness, job-shop, due-date, machine, preempt, make-span, sequence dependent setup | RCPSP, psplib                          | cumulative, disjunctive, alldifferent |                | Choco Solver               |  |                        | benchmark, random instance | not-last, time-tabling, sweep, edge-finding, not-first                                   | 1000 | 1418 |
| FalaschiGMP97 [169] | 27    | order, scheduling   |  |                                       | Prolog         |                            |  |                        |                            |  | 1131 | 1549 |
| FallahiAC20 [170]   | 18    | order, resource, task, transportation, scheduling   |  | cycle                                 |                | OR-Tools, OZ               | robot, nurse, medical, container terminal                          |                        | github, real-life          | sweep  | 975  | 1393 |
| FanXG21 [171]       | 15    | due-date, no preempt, preempt, tardiness, job, order, batch process, machine, task, earliness, completion-time, flow-shop, distributed, precedence, setup-time, resource, make-span, job-shop, scheduling, flow-time                | single machine, parallel machine       | cycle                                 | Java, Python   | OZ, ECLiPSe, Cplex, Gurobi | semiconductor  | manufacturing industry | benchmark                  | max-flow   | 961  | 1379 |
| FarsiTM22 [172]     | 14    | completion-time, tardiness, continuous-process, re-scheduling, earliness, distributed, task, resource, scheduling, make-span  |  | circuit, alldifferent                 |                | Cplex                      | physician, robot, medical, nurse, operating room, patient, surgery |                        | supplementary material     | time-tabling   | 946  | 1364 |
| FetgoD22 [174]      | 32    | task, precedence, cmax, preempt, lazy clause generation, make-span, order, scheduling, resource, completion-time  | CuSP, RCPSP                            | cumulative                            | Python, Java   | OZ, CHIP, Choco Solver     |  |                        | benchmark, real-world      | not-first, not-last, energetic reasoning, edge-finding, sweep, edge-finder, time-tabling | 948  | 1366 |
| GarridoAO09 [185]   | 30    | re-scheduling, precedence, scheduling, make-span, resource, order, task   |  | disjunctive                           | Java           | CPO, OPL, Choco Solver     |  |                        | benchmark                  |  | 1078 | 1496 |
| GarridoOS08 [186]   | 11    | scheduling, make-span, resource, order, activity, task, machine   |  |                                       | Java, C        | Choco Solver, CPO          |  |                        | real-world                 |  | 1084 | 1502 |
| GedikKEK18 [191]    | 11    | cmax, resource, job, setup-time, due-date, scheduling, tardiness, task, order, machine, preempt, make-span, sequence dependent setup, completion-time, transportation   | single machine, parallel machine, PMSP | cumulative, noOverlap                 |                | Cplex, OZ                  | nurse, medical   | manufacturing industry | benchmark                  |  | 1001 | 1419 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work               | Pages | Concepts  | Classification                        | Constraints   | Prog Languages | CP Systems                    | Areas   | Industries     | Benchmarks  | Algorithm  | a    | c    |
|--------------------|-------|---|---------------------------------------|---|----------------|-------------------------------|---|----------------|---|--|------|------|
| GoelSHFS15 [204]   | 12    | precedence, resource, inventory, setup-time, scheduling, activity, task, order, transportation, machine   |                                       | cumulative, noOverlap, disjunctive, alwaysIn              |                | OPL, Cplex, CPO               | pipeline  |                |   |  | 1028 | 1446 |
| GokgurHO18 [205]   | 17    | setup-time, task, earliness, job-shop, due-date, scheduling, machine, preempt, activity, flow-shop, order, completion-time, transportation, make-span, cmax, job, precedence, release-date, tardiness, resource | single machine, parallel machine      | alternative constraint, cumulative, disjunctive           |                | OZ, OPL, CHIP                 | robot, semi-conductor                                     |                | real-life, real-world                             | not-first, edge-finding, energetic reasoning, not-last | 1002 | 1420 |
| GoldwaserS18 [207] | 32    | scheduling, machine, transportation, due-date, order, flow-shop, task, lazy clause generation, resource   |                                       | cumulative  | Python         | Chuffed, Gurobi, CHIP, Gecode | torpedo   | steel industry | instance generator, benchmark, generated instance | github, sweep  | 1003 | 1421 |
| GrimesIOS14 [214]  | 16    | completion-time, due-date, resource, task, machine, preempt, distributed, re-scheduling, order, activity, scheduling  |                                       | disjunctive   |                | Cplex, CHIP                   | energy-price, real-time pricing, HVAC                     |                | real-world, real-life                             |  | 1038 | 1456 |
| GurEA19 [560]      | 24    | order, distributed, resource, job-shop, scheduling, re-scheduling, job, completion-time   |                                       |   |                | OZ, Cplex                     | patient, medical, surgery, operating room                 |                | real-life   |  | 987  | 1405 |
| GurPAE23 [220]     | 25    | re-scheduling, order, scheduling, distributed, resource, inventory, machine   |                                       | cumulative  |                | OPL, Cplex, OZ                | physician, surgery, patient, operating room, COVID, nurse |                | real-life   |  | 931  | 1349 |
| HachemiGR11 [221]  | 16    | task, precedence, job-shop, transportation, make-span, scheduling, resource, order, job, activity   |                                       | cycle, alldifferent                                       |                | OPL, Ilog Scheduler, Cplex    | crew-scheduling, forestry                                 | food industry  |   |  | 1059 | 1477 |
| Ham18 [222]        | 14    | cmax, precedence, batch process, resource, completion-time, make-span, scheduling, machine, inventory, transportation, job-shop, job, distributed, sequence dependent setup, due-date, task, order              | parallel machine                      | cumulative, noOverlap, endBeforeStart, disjunctive, cycle |                | Cplex, OPL                    | drone, robot, aircraft, semiconductor                     |                |   |  | 1004 | 1422 |
| HamPK21 [223]      | 12    | distributed, precedence, cmax, setup-time, resource, make-span, job-shop, scheduling, sequence dependent setup, tardiness, re-scheduling, order, machine, task, job, completion-time, flow-shop                 | parallel machine, single machine, FJS | noOverlap, endBeforeStart, cycle                          |                | OPL, Cplex                    | robot, agriculture, semiconductor                         |                | benchmark, github                                 |  | 962  | 1380 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                 | Pages | Concepts   | Classification  | Constraints   | Prog Languages | CP Systems                                    | Areas  | Industries                       | Benchmarks  | Algorithm   | a    | c    |
|----------------------|-------|--|---|---|----------------|---|--|----------------------------------|---|---|------|------|
| HebrardHJMPV16 [231] | 10    | completion-time, resource, task, cmax, distributed, machine, scheduling, order, job, make-span   | parallel machine                                      | cumulative  |                | OZ  | satellite, earth observation   |                                  | industrial partner                                |   | 1021 | 1439 |
| HeckmanB11 [234]     | 20    | resource, job, scheduling, tardiness, order, job-shop, machine, activity, make-span, flow-shop, precedence   |   | disjunctive   |                | Ilog Scheduler                                |  |                                  | benchmark, real-world                             | edge-finding, edge-finder   | 1060 | 1478 |
| HeinzNVH22 [240]     | 16    | activity, make-span, job, precedence, re-scheduling, distributed, resource, setup-time, scheduling, preempt, sequence dependent setup, flow-shop, task, order, completion-time, machine        | parallel machine                                      | cumulative, noOverlap, alternative constraint                                   |                | Gurobi  | robot, crew-scheduling   |                                  | real-world, generated instance, benchmark, gitlab |   | 949  | 1367 |
| HeinzSB13 [239]      | 36    | preempt, due-date, resource, scheduling, precedence, order, completion-time, machine, job, release-date  | RCPSP, single machine, psplib                         | disjunctive, cumulative   |                | MiniZinc, Cplex                               | satellite  |                                  | benchmark   | time-tabling, edge-finding  | 1045 | 1463 |
| HeinzSSW12 [237]     | 12    | inventory, task, order   |   | bin-packing   |                | Cplex   | steel mill   | steel industry, process industry | real-world, CSPLib                                |   | 1048 | 1466 |
| HeipckeCCS00 [242]   | 8     | make-span, release-date, resource, activity, precedence, completion-time, job-shop, due-date, preempt, scheduling, order, machine, job, task   | single machine, RCPSP                                 | disjunctive, cumulative   |                |   |  |                                  | benchmark, instance generator                     |   | 1117 | 1535 |
| Hooker05 [250]       | 17    | machine, job, task, precedence, release-date, due-date, make-span, order, tardiness, scheduling, distributed, resource   |   | cumulative, circuit, disjunctive  |                | Cplex, OPL, Ilog Scheduler                    |  |                                  | random instance                                   | edge-finding  | 1098 | 1516 |
| Hooker06 [252]       | 19    | machine, job, task, precedence, release-date, due-date, make-span, order, tardiness, scheduling, resource  |   | cumulative, circuit, disjunctive  |                | Cplex, OPL, Ilog Scheduler                    |  |                                  | random instance                                   |   | 1094 | 1512 |
| HookerH18 [257]      | 24    | preempt, job-shop, transportation, flow-shop, resource, scheduling, open-shop, task, multi-agent, order, machine, tardiness, job, activity, setup-time, release-date, sequence dependent setup | Open Shop Scheduling Problem, RCPSP, parallel machine | circuit, bin-packing, cumulative, alldifferent, disjunctive, regular expression |                | CHIP, ECLiPSe, OZ, OPL, MiniZinc, Ilog Solver | aircraft, crew-scheduling, radiation therapy, nurse, physician, operating room |                                  | real-world, real-life                             | not-first, time-tabling, edge-finding, not-last, bi-partite matching, energetic reasoning | 1005 | 1423 |
| HubnerGSV21 [260]    | 22    | completion-time, resource, order, job, inventory, activity, due-date, task, machine, preempt, transportation, cmax, tardiness, make-span, precedence, scheduling                               | RCPSPDC, RCPSP  | cycle, cumulative, end-BeforeStart, alternative constraint                      | C              | Gurobi, Cplex, OPL                            | automotive   |                                  | benchmark, real-life                              |   | 963  | 1381 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                    | Pages | Concepts  | Classification                   | Constraints   | Prog Languages | CP Systems  | Areas                         | Industries     | Benchmarks   | Algorithm   | a    | c    |
|-------------------------|-------|---|----------------------------------|---|----------------|---|-------------------------------|----------------|--|---|------|------|
| IsikYA23 [262]          | 28    | tardiness, scheduling, machine, distributed, job, resource, completion-time, flow-shop, batch process, setup-time, job-shop, release-date, due-date, task, precedence, transportation, earliness, order, cmax, sequence dependent setup, preempt, make-span | parallel machine, single machine | circuit, noOverlap, cumulative, endBeforeStart        |                | OPL, Cplex, OZ                                      | medical, robot                | steel industry | real-world, benchmark, generated instance, real-life | energetic reasoning   | 932  | 1350 |
| Kameugne15 [271]        | 2     | resource, scheduling, task, preempt, completion-time  |                                  | cumulative  |                |   |                               |                |  | not-last, edge-finding, not-first   | 1030 | 1448 |
| KameugneFSN14 [275]     | 27    | job-shop, release-date, resource, precedence, job, order, preempt, scheduling, make-span, completion-time, task   | RCPSP, psplib, CuSP              | disjunctive, cumulative                               |                | CHIP, Gecode  |                               |                | random instance, benchmark                           | energetic reasoning, edge-finding, not-last, not-first, edge-finder, time-tabling | 1039 | 1457 |
| KelbelH11 [278]         | 10    | release-date, inventory, earliness, due-date, preempt, job-shop, resource, scheduling, make-span, distributed, task, precedence, order, completion-time, machine, tardiness, job  | JSSP                             | cumulative, disjunctive                               |                | Ilog Solver, OPL, Cplex                             |                               |                | benchmark, random instance, generated instance       | edge-finder, edge-finding   | 1061 | 1479 |
| KhayatLR06 [280]        | 15    | job-shop, due-date, scheduling, preempt, task, order, machine, activity, make-span, cmax, job, precedence, resource, setup-time   |                                  |   |                | OPL, Cplex  |                               |                | real-life, benchmark                                 |   | 1095 | 1513 |
| KoehlerBFFHPSSS21 [285] | 51    | flow-shop, scheduling, lateness, job, task, make-span, machine, tardiness, precedence, resource, job-shop, flow-time, order   | CTW, single machine              | cycle, circuit, cumulative, disjunctive, alldifferent | C , Python     | Z3, MiniZinc, OPL, Cplex, Gurobi, OR-Tools, Chuffed | cable tree, automotive, robot |                | real-world, benchmark, github                        |   | 964  | 1382 |
| KorbaaYG00 [288]        | 10    |   |                                  |   |                |   |                               |                |  |   | 1118 | 1536 |
| KovacsB08 [291]         | 7     | order, tardiness, job, activity, preempt, release-date, resource, scheduling, completion-time, machine  | single machine                   | bin-packing, disjunctive, cumulative, cycle           |                | Ilog Scheduler, Ilog Solver                         | aircraft                      |                | benchmark  | sweep   | 1085 | 1503 |
| KovacsB11 [292]         | 24    | flow-time, precedence, order, tardiness, job, activity, preempt, release-date, earliness, distributed, due-date, job-shop, flow-shop, resource, scheduling, make-span, completion-time, machine   | parallel machine, single machine | disjunctive, cumulative, cycle                        | C++            | Ilog Scheduler, Ilog Solver                         |                               |                | benchmark  | edge-finding  | 1062 | 1480 |



Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                 | Pages | Concepts  | Classification                        | Constraints  | Prog Languages       | CP Systems   | Areas   | Industries   | Benchmarks  | Algorithm  | a    | c    |
|----------------------|-------|---|---------------------------------------|--|----------------------|--|---|--|---|--|------|------|
| KovacsK11 [294]      | 24    | tardiness, job, release-date, earliness, sequence dependent setup, due-date, job-shop, transportation, flow-shop, resource, scheduling, completion-time, task, machine, order   | single machine                        | cycle  | C++                  | Ilog Solver, Gecode, Cplex   |   |  |   |  | 1063 | 1481 |
| KreterSS17 [299]     | 31    | scheduling, task, order, machine, preempt, activity, make-span, completion-time, precedence, resource, lazy clause generation   | RCPSP, parallel machine               | cycle, alwaysIn, cumulative, diffn   |                      | CPO, Cplex, MiniZinc, CHIP, Chuffed                                      |   |  | benchmark   | edge-finding   | 1013 | 1431 |
| KuchcinskiW03 [302]  | 15    | scheduling, precedence, resource, distributed, order  |                                       | cycle, circuit   | Java                 |  | pipeline  |  | benchmark   |  | 1104 | 1522 |
| Laborie03 [305]      | 38    | task, precedence, order, cmax, machine, job, activity, re-scheduling, setup-time, release-date, inventory, preempt, job-shop, resource, scheduling, make-span   |                                       | cycle, table constraint, cumulative, disjunctive   | C++                  | Ilog Scheduler   |   |  | benchmark   | edge-finding, not-last, energetic reasoning, not-first, time-tabling | 1105 | 1523 |
| LaborieRSV18 [308]   | 41    | release-date, job-shop, resource, activity, precedence, sequence dependent setup, earliness, scheduling, machine, inventory, transportation, manpower, due-date, setup-time, batch process, order, tardiness, flow-shop, job, make-span, re-scheduling, task, distributed | psplib, parallel machine, RCPSP       | alternative constraint, cumulative, noOverlap, disjunctive, span constraint, cycle, alwaysIn, endBeforeStart | C, Python, C++, Java | CHIP, Gecode, Ilog Solver, Cplex, Ilog Scheduler, OPL, Choco Solver, CPO | semiconductor, railway, container terminal, satellite, robot, pipeline, aircraft, shipping line | chemical industry, petrochemical industry                    | real-world, CSPLib, benchmark   | edge-finding   | 1007 | 1425 |
| LacknerMMWW23 [310]  | 42    | release-date, batch process, setup-time, job, order, due-date, tardiness, scheduling, make-span, machine, task, lateness, job-shop, earliness   | parallel machine, OSP, single machine | alternative constraint, disjunctive, bin-packing, noOverlap, cumulative, endBeforeStart                      |                      | Chuffed, Cplex, OPL, CPO, OR-Tools, MiniZinc, Gurobi                     | semiconductor, oven scheduling  | electronics industry, steel industry, manufacturing industry | random instance, industrial partner, benchmark, instance generator, zenodo, real-life | time-tabling   | 933  | 1351 |
| LammaMM97 [312]      | 15    | job-shop, resource, scheduling, precedence, order, task, job, distributed   |                                       | circuit, disjunctive   | C++, Prolog          | ECLiPSe, OPL, CHIP   | railway   |  | real-life   |  | 1133 | 1551 |
| LetortCB15 [318]     | 52    | machine, make-span, job, precedence, resource, scheduling, task, order  | psplib                                | cumulative, cycle, bin-packing   | Java, Prolog         | Choco Solver, CHIP, SICStus  |   |  | generated instance, RoadeF, benchmark, random instance                                | energetic reasoning, sweep, edge-finding                             | 1031 | 1449 |
| LiessM08 [320]       | 12    | preempt, resource, scheduling, machine, job, activity, precedence, job-shop, task, make-span, order, cmax   | RCPSP, psplib                         | disjunctive, cumulative  | C++                  | OZ   |   |  | benchmark   | edge-finding   | 1086 | 1504 |
| LimtanyakulS12 [325] | 32    | release-date, scheduling, order, completion-time, job, resource, activity, tardiness, machine, due-date, precedence   |                                       | table constraint, disjunctive, bin-packing, cumulative   |                      | OZ, Ilog Scheduler, Cplex  | robot, automotive   | automotive industry  | random instance, real-life, generated instance, industrial partner, benchmark         | not-last, energetic reasoning, not-first, edge-finding               | 1049 | 1467 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                | Pages | Concepts   | Classification                                 | Constraints   | Prog Languages | CP Systems                           | Areas                           | Industries        | Benchmarks   | Algorithm                         | a    | c    |
|---------------------|-------|--|--|---|----------------|--------------------------------------|---------------------------------|-------------------|--|-----------------------------------|------|------|
| LombardiM10a [334]  | 30    | due-date, distributed, order, job, make-span, release-date, re-scheduling, task, completion-time, resource, activity, precedence, preempt, scheduling, machine   | TCSP   | cycle, span constraint, cumulative, disjunctive, table constraint | C              | Cplex                                |                                 |                   | real-world, benchmark, real-life                       | sweep                             | 1071 | 1489 |
| LombardiM12 [337]   | 35    | precedence, flow-shop, job-shop, transportation, completion-time, re-scheduling, make-span, sequence dependent setup, order, setup-time, job, activity, earliness, scheduling, due-date, resource, task, machine, inventory, preempt, distributed, manpower, lazy clause generation, tardiness | parallel machine, RCPSP, psplib                | cycle, disjunctive, cumulative, circuit                           |                | OZ, OR-Tools                         | aircraft                        | chemical industry | real-world, benchmark                                  | energetic reasoning, edge-finding | 1050 | 1468 |
| LombardiM12a [336]  | 10    | order, make-span, completion-time, resource, activity, precedence, producer/consumer, scheduling distributed, stock level,   | psplib, RCPSP                                  | disjunctive   |                | Ilog Solver                          |                                 |                   | benchmark  |                                   | 1051 | 1469 |
| LopesCSM10 [339]    | 39    | resource, inventory, job-shop, due-date, scheduling, activity, task, order, transportation, make-span, job, precedence, re-scheduling  |  | disjunctive, table constraint, cycle, alldifferent                | C++            | Ilog Scheduler, Ilog Solver, OZ, OPL | pipeline                        | oil industry      | benchmark, real-world                                  | max-flow                          | 1072 | 1490 |
| LopezAKYG00 [340]   | 4     |  |  |   |                |                                      |                                 |                   |  |                                   | 1119 | 1537 |
| LorigeonBB02 [341]  | 8     | setup-time, preempt, scheduling, machine, order, flow-shop, job, cmax, make-span, open-shop, completion-time, resource, activity   | parallel machine, Open Shop Scheduling Problem |   |                | OZ, Cplex, OPL                       |                                 |                   |  |                                   | 1108 | 1526 |
| LunardiBLRV20 [343] | 20    | scheduling, due-date, make-span, machine, completion-time, job-shop, flow-shop, resource, precedence, setup-time, activity, re-scheduling, job, order, tardiness, preempt  | FJS  | endBeforeStart, noOverlap   | Python         | Cplex                                |                                 |                   | benchmark, random instance, generated instance, github |                                   | 976  | 1394 |
| MalikMB08 [353]     | 18    | distributed, resource, scheduling, machine, precedence, order  |  | cycle   |                |                                      | pipeline                        |                   | benchmark  | edge-finding                      | 1087 | 1505 |
| MartinPY01 [355]    | 17    | scheduling, task, order, machine, transportation, re-scheduling, resource  |  | circuit   | Prolog         | ECLiPSe, Ilog Solver                 | railway, aircraft               |                   | real-life  |                                   | 1112 | 1530 |
| Mason01 [356]       | 38    | scheduling, order, task, activity, transportation  |  |   |                | OPL, Cplex                           | railway, crew-scheduling, nurse |                   |  |                                   | 1113 | 1531 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                    | Pages | Concepts  | Classification   | Constraints  | Prog Languages | CP Systems  | Areas  | Industries | Benchmarks  | Algorithm    | a   | c    |
|-------------------------|-------|---|--|--|----------------|---|--|------------|---|--------------|-----|------|
| MejiaY20 [358]          | 13    | resource, completion-time, machine, setup-time, job, job-shop, open-shop, cmax, sequence dependent setup, release-date, preempt, due-date, re-scheduling, make-span, transportation, multi-agent, order, tardiness, scheduling, distributed                           | Open Shop Scheduling Problem, OSSP, parallel machine                                       | disjunctive  | Java           | Cplex, ECLiPSe  | agriculture, robot   |            | supplementary material, benchmark, generated instance |              | 977 | 1395 |
| MengZRZL20 [360]        | 13    | earliness, job-shop, scheduling, machine, preempt, sequence dependent setup, flow-time, flow-shop, order, completion-time, transportation, make-span, cmax, job, precedence, batch process, open-shop, distributed, tardiness, resource, no preempt, setup-time, task | Open Shop Scheduling Problem, OSP, parallel machine, FJS                                   | alternative constraint, noOverlap, endBeforeStart                          |                | OPL, Gecode, Gurobi, OR-Tools, Cplex                              | robot, semiconductor   |            | supplementary material, benchmark                     |              | 978 | 1396 |
| MokhtarzadehTNF20 [364] | 14    | task, make-span, multi-agent, setup-time, distributed, manpower, precedence, resource, completion-time, machine, scheduling, order, job   | parallel machine   | alldifferent, cycle, circuit   |                | Cplex   | robot, crew-scheduling   |            | generated instance, real-world                        | time-tabling | 979 | 1397 |
| MontemanniD23 [368]     | 13    | resource, distributed, order, scheduling, machine, task   |  | circuit  | Python         | OPL, OR-Tools, Gurobi   | robot, drone   |            | benchmark, supplementary material                     |              | 934 | 1352 |
| MontemanniD23a [367]    | 20    | order, completion-time, task, transportation, scheduling precedence, job-shop, batch process, scheduling, completion-time, make-span, order, setup-time, job, activity, due-date, resource, task, machine, preempt, cmax  |  | circuit  | Python         | OR-Tools  | drone  |            | benchmark   |              | 935 | 1353 |
| MullerMKP22 [372]       | 18    | order, setup-time, job, activity, due-date, resource, task, machine, preempt, cmax  | FJS  | disjunctive, circuit   | Java, Python   | Chuffed, MiniZinc, OZ, Gecode, Choco Solver, OPL, Cplex, OR-Tools | robot, semiconductor   |            | benchmark, random instance, real-world, github        |              | 950 | 1368 |
| NaderiBZ22 [377]        | 29    | distributed, resource, setup-time, job-shop, open-shop, due-date, scheduling, tardiness, flow-shop, order, lateness, transportation, machine, make-span, completion-time, job   | single machine, parallel machine   | disjunctive, noOverlap   |                | Cplex, CPO, OZ  | operating room, nurse, patient, crew-scheduling, automotive, surgery |            | benchmark, real-life                                  |              | 951 | 1369 |
| NaderiRR23 [378]        | 27    | preempt, sequence dependent setup, flow-shop, task, order, earliness, transportation, machine, make-span, cmax, completion-time, job, precedence, re-scheduling, distributed, resource, setup-time, job-shop, open-shop, due-date, scheduling, tardiness              | RCPSP, FJS, OSP, Open Shop Scheduling Problem, PMSP, PTC, single machine, parallel machine | cumulative, noOverlap, endBeforeStart, disjunctive, alternative constraint | Python         | CPO, OZ, Z3, Gurobi, Cplex  | crew-scheduling, automotive, operating room                          |            | github, benchmark                                     |              | 936 | 1354 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                 | Pages | Concepts   | Classification                   | Constraints  | Prog Languages | CP Systems                           | Areas  | Industries              | Benchmarks            | Algorithm                         | a    | c    |
|----------------------|-------|--|----------------------------------|--|----------------|--------------------------------------|--|-------------------------|-----------------------|-----------------------------------|------|------|
| NattafAL15 [379]     | 21    | resource, release-date, due-date, scheduling, preempt, task, order, activity, make-span  | CECSP, CuSP, RCPSP               | cumulative   | C++            | Cplex                                |  |                         | generated instance    | sweep, energetic reasoning        | 1032 | 1450 |
| NattafAL17 [380]     | 18    | resource, release-date, scheduling, task, order, activity, make-span, job  | CECSP                            | disjunctive, cumulative  | C++            | Cplex                                |  |                         | real-world            | edge-finding, energetic reasoning | 1014 | 1432 |
| NishikawaSTT19 [386] | 16    | re-scheduling, make-span, order, preempt, resource, activity, task, distributed, machine, precedence, scheduling   | parallel machine                 | cumulative, alternative constraint   |                | Cplex, OZ                            | pipeline, robot  |                         | real-world, benchmark |                                   | 988  | 1406 |
| NovaraNH16 [387]     | 17    | earliness, machine, make-span, job, precedence, batch process, re-scheduling, tardiness, resource, setup-time, due-date, scheduling, activity, sequence dependent setup, manpower, task, order, completion-time  |                                  | cumulative, noOverlap, endBeforeStart, disjunctive, alternative constraint |                | OPL, Cplex                           |  | pharmaceutical industry | CSPlib, benchmark     |                                   | 1023 | 1441 |
| Novas19 [388]        | 13    | inventory, lateness, setup-time, resource, make-span, scheduling, flow-shop, transportation, flow-time, precedence, cmax, release-date, job-shop, sequence dependent setup, due-date, machine, task, tardiness, job, completion-time, activity, order, distributed | parallel machine, FJS            | cycle, cumulative, noOverlap, endBeforeStart                               |                | OPL, OZ, Cplex                       | medical, semiconductor, robot                                  |                         | benchmark             |                                   | 989  | 1407 |
| NovasH10 [389]       | 20    | precedence, batch process, due-date, re-scheduling, make-span, earliness, order, tardiness, scheduling, resource, completion-time, machine, setup-time, lateness, job, task, manpower, activity  |                                  |  |                | OZ, OPL, Ilog Scheduler              | pipeline   |                         |                       |                                   | 1073 | 1491 |
| NovasH12 [390]       | 17    | precedence, make-span, transportation, order, scheduling, resource, completion-time, machine, job, task, activity  |                                  | cycle  |                | Ilog Solver, OZ, OPL, Ilog Scheduler | semiconductor robot, hoist, electroplating, container terminal |                         |                       |                                   | 1052 | 1470 |
| NovasH14 [391]       | 14    | precedence, make-span, transportation, order, scheduling, buffer-capacity, resource, completion-time, machine, job, job-shop, task, activity   | parallel machine, single machine |  |                | Ilog Solver, OPL, Ilog Scheduler     | robot  |                         | benchmark             |                                   | 1040 | 1458 |
| NuijtenP98 [393]     | 16    | resource, setup-time, job-shop, scheduling, preempt, manpower, flow-shop, task, order, completion-time, transportation, machine, make-span, job, precedence  | JSSP, single machine             | disjunctive  | C++            | Ilog Solver, Ilog Scheduler, OPL     | satellite  |                         | real-life             | edge-finding                      | 1128 | 1546 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                  | Pages | Concepts  | Classification   | Constraints  | Prog Languages | CP Systems                        | Areas                                | Industries             | Benchmarks   | Algorithm                                      | a    | c    |
|-----------------------|-------|---|--|--|----------------|-----------------------------------|--------------------------------------|------------------------|--|--|------|------|
| OhrimenkoSC09 [395]   | 35    | completion-time, lazy clause generation, scheduling, make-span, machine, open-shop, resource, order, job  | Open Shop Scheduling Problem                                   | disjunctive, alldifferent  |                | Gecode, OZ                        |                                      |                        | benchmark  |  | 1080 | 1498 |
| OzturkTHO13 [400]     | 36    | order, setup-time, job, activity, scheduling, completion-time, resource, task, machine, preempt, cmax, precedence, flow-shop, make-span   | SBSFMMAL   | cycle, disjunctive, cumulative   |                | OPL, Cplex, CHIP, Ilog Solver, OZ |                                      |                        | real-world, real-life                                | edge-finding                                   | 1046 | 1464 |
| PandeyS21a [401]      | 29    | make-span, re-scheduling, job, precedence, distributed, resource, task, scheduling, machine, activity, flow-shop, order, completion-time  | single machine, parallel machine, PMSP                         | cumulative, endBeforeStart, alternative constraint                                   |                | OPL, Cplex, OZ                    | semiconductor                        |                        | benchmark  |  | 965  | 1383 |
| PapaB98 [404]         | 25    | due-date, preempt, machine, re-scheduling, job, activity, order, task, make-span, completion-time, scheduling, flow-shop, distributed, cmax, setup-time, resource, job-shop   | PJSSP, JSSP  | cumulative, table constraint, disjunctive  | C++            | Ilog Solver, CHIP, Claire         | hoist                                |                        | benchmark  | edge-finder, energetic reasoning, edge-finding | 1129 | 1547 |
| PoderBS04 [412]       | 16    | preempt, due-date, resource, scheduling, precedence, order, task, machine, activity, producer/consumer, release-date  | RCPSP  | cumulative   | Prolog         | CHIP                              |                                      | chemical industry      |  |  | 1101 | 1519 |
| PohlAK22 [413]        | 16    | resource, activity, completion-time, setup-time, lateness, release-date, precedence, transportation, earliness, order, sequence dependent setup, re-scheduling, tardiness, inventory, scheduling, machine, job  | SCC, single machine  | noOverlap, cumulative  | Python         | Gurobi, Cplex, OZ                 | aircraft                             |                        | benchmark, real-world                                |  | 952  | 1370 |
| Polo-MejiaALB20 [414] | 18    | cmax, resource, preempt, precedence, earliness, tardiness, task, due-date, job, order, activity, release-date, make-span, machine, scheduling, completion-time, setup-time  | RCPSP  | alternative constraint, alwaysIn, cumulative, noOverlap, disjunctive, endBeforeStart | C++            | Cplex, CPO                        |                                      |                        | Roadef, github                                       |  | 980  | 1398 |
| PourDERB18 [416]      | 12    | scheduling, task, order, machine, transportation, job   |  |  |                | Cplex, OR-Tools                   | crew-scheduling, railway             |                        | real-life, benchmark, real-world, generated instance |  | 1008 | 1426 |
| PrataAN23 [420]       | 17    | machine, tardiness, job, lateness, activity, re-scheduling, flow-time, setup-time, release-date, inventory, earliness, sequence dependent setup, distributed, due-date, preempt, job-shop, batch process, flow-shop, resource, scheduling, make-span, open-shop, completion-time, task, precedence, order | single machine, parallel machine, Open Shop Scheduling Problem | circuit, cumulative  |                | OZ, CHIP                          | robot, aircraft, energy-price, dairy | manufacturing industry | benchmark, real-world, real-life                     | time-tabling                                   | 923  | 1341 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                 | Pages | Concepts  | Classification                                 | Constraints  | Prog Languages | CP Systems                                 | Areas   | Industries                              | Benchmarks                               | Algorithm                                      | a    | c    |
|----------------------|-------|---|--|--|----------------|--|---|---|--|--|------|------|
| QinDCS20 [423]       | 18    | transportation, order, cmax, tardiness, scheduling, resource, completion-time, machine, setup-time, job, task, activity, precedence, make-span                          | parallel machine                               | endBeforeStart, cycle, noOverlap   |                | Cplex, OPL                                 | yard crane, shipping line, container terminal |   | real-life, benchmark                     |  | 981  | 1399 |
| QinWSLS21 [422]      | 12    | preempt, job-shop, flow-shop, batch process, scheduling, make-span, order, cmax, completion-time, machine, tardiness, job, lateness                                     | single machine                                 |  | C++            | OZ, OPL, Cplex                             | agriculture, semiconductor                    |   |  |  | 966  | 1384 |
| Rodriguez07 [430]    | 15    | precedence, job-shop, transportation, job, scheduling, resource, order, task, preempt, activity, due-date   |  | disjunctive, circuit   |                | Ilog Solver, Ilog Scheduler, Cplex, Z3     | railway, satellite                            |   | real-life                                |  | 1092 | 1510 |
| RodriguezDG02 [429]  | 10    | completion-time, scheduling, resource, transportation, activity, order  |  | circuit, disjunctive   |                |  | railway                                       |   |  | edge-finding                                   | 1109 | 1527 |
| RuggieroBBMA09 [432] | 14    | scheduling, order, resource, activity, preempt, setup-time, distributed, machine, precedence, task  |  | circuit, cumulative, cycle   |                | OZ, Ilog Solver, Ilog Scheduler, Cplex     | pipeline, satellite                           |   | instance generator, real-life            |  | 1081 | 1499 |
| SacramentoSP20 [433] | 33    | preempt, distributed, machine, precedence, task, flow-shop, job-shop, open-shop, transportation, scheduling, order, completion-time, job, resource, make-span, activity | parallel machine, Open Shop Scheduling Problem | disjunctive, cumulative, alternative constraint, endBeforeStart, noOverlap | Java           | Cplex, OZ, CPO                             | container terminal                            |   | benchmark, real-life, zenodo, real-world |  | 982  | 1400 |
| SadykovW06 [435]     | 9     | scheduling, lateness, due-date, machine, completion-time, job, release-date   | single machine, parallel machine               | disjunctive  |                | CHIP                                       | robot   |   | generated instance                       |  | 1096 | 1514 |
| SakkoutW00 [436]     | 30    | scheduling, distributed, task, order, job-shop, machine, preempt, activity, precedence, transportation, re-scheduling, resource, job                                    | KRFP, single machine                           | bin-packing, disjunctive   |                | CHIP, Cplex                                | emergency service, aircraft                   |   | benchmark, real-world                    | edge-finding, edge-finder                      | 1120 | 1538 |
| SchausHMCMD11 [437]  | 23    | order, task   | SCC  | bin-packing  |                |  | steel mill                                    | steel industry                          | benchmark, CSPlib, generated instance    |  | 1064 | 1482 |
| SchildW00 [438]      | 23    | distributed, job-shop, flow-shop, resource, scheduling, completion-time, task, machine, precedence, order, job  | single machine                                 | disjunctive, cycle, bin-packing  |                | OZ, Ilog Solver                            | automotive                                    | automotive industry, aerospace industry |  | time-tabling, edge-finding                     | 1121 | 1539 |
| SchuttFSW11 [444]    | 33    | scheduling, completion-time, resource, open-shop, order, task, machine, preempt, activity, lazy clause generation, precedence, make-span                                | psplib, RCPSP                                  | disjunctive, cumulative, circuit, span constraint                          |                | Ilog Scheduler, ECLiPSe, CHIP, SICStus, OZ |   |   | benchmark, real-world                    | not-last, not-first, edge-finding, edge-finder | 1065 | 1483 |
| SchuttFSW13 [445]    | 17    | scheduling, resource, order, setup-time, task, machine, preempt, activity, cmax, lazy clause generation, precedence, release-date                                       | SCC, psplib, RCPSP                             | cycle, disjunctive, cumulative   | C++            | CHIP, OZ                                   |   |   | benchmark, supplementary material        |  | 1047 | 1465 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                 | Pages | Concepts  | Classification                   | Constraints  | Prog Languages | CP Systems                    | Areas   | Industries      | Benchmarks                       | Algorithm                                | a    | c    |
|----------------------|-------|---|----------------------------------|--|----------------|-------------------------------|---|-----------------|----------------------------------|--|------|------|
| ShaikhK23 [451]      | 12    | order, job, activity, re-scheduling, distributed, job-shop, resource, scheduling, open-shop, task, machine  |                                  |  |                |                               | medical, drone                                |                 | benchmark, real-world            | time-tabling                             | 937  | 1355 |
| ShinBBHO18 [454]     | 16    | scheduling, task, order, machine, preempt, activity, transportation, resource, inventory, job   |                                  |  |                |                               | patient, physician, medical, nurse            |                 | github, real-world               |  | 1009 | 1427 |
| Siala15 [455]        | 2     | resource, scheduling  |                                  | disjunctive  |                |                               |   |                 | benchmark                        |  | 1033 | 1451 |
| SimoninAHL15 [459]   | 23    | resource, activity, precedence, preempt, scheduling, order, inventory, transportation, task, make-span  |                                  | disjunctive, span constraint, cumulative, cycle                  |                | CHIP                          | earth observation, satellite, pipeline, robot |                 |                                  | sweep                                    | 1034 | 1452 |
| Simonis07 [461]      | 30    | due-date, job-shop, batch process, transportation, resource, scheduling, make to order, task, machine, producer/consumer, order, bill of material, job, activity, re-scheduling, setup-time, release-date, sequence dependent setup |                                  | disjunctive, cumulative, alldifferent, cycle, diffn, bin-packing | Prolog         | OZ, OPL, CHIP, Ilog Scheduler | aircraft, patient, nurse, medical             |                 |                                  | time-tabling, sweep, bi-partite matching | 1093 | 1511 |
| SourdN00 [463]       | 12    | make-span, order, scheduling, resource, completion-time, machine, setup-time, job, job-shop, flow-shop, precedence, open-shop, cmax, release-date, preempt  | single machine, JSSP             | disjunctive, cumulative  |                | Ilog Scheduler                | robot   |                 | real-life, benchmark             | edge-finding, not-first                  | 1122 | 1540 |
| SubulanC22 [465]     | 38    | scheduling, tardiness, task, order, due-date, machine, preempt, activity, make-span, BOM, completion-time, precedence, transportation, resource, inventory  | RCPSp                            | endBeforeStart, cumulative                                       |                | Cplex, OZ, OPL                | offshore                                      |                 | real-life, benchmark, real-world |  | 954  | 1372 |
| SureshMOK06 [468]    | 19    | distributed, scheduling, buffer-capacity, order, job, task, machine   |                                  | cumulative, cycle  |                | Z3, OZ                        |   |                 |                                  |  | 1097 | 1515 |
| TangLWSK18 [473]     | 28    | scheduling, task, order, preempt, activity, job, transportation, re-scheduling, resource  | RCPSp                            | cycle, circuit   | C              | Cplex, OZ, OPL                | crew-scheduling, railway, pipeline            |                 |                                  |  | 1010 | 1428 |
| TerekhovTDB14 [480]  | 38    | flow-shop, cmax, resource, order, inventory, activity, re-scheduling, job, distributed, completion-time, no preempt, tardiness, preempt, job-shop, scheduling, flow-time, make-span, buffer-capacity, machine, release-date, task   | parallel machine, single machine |  |                | Ilog Scheduler, Cplex         | semiconductor robot                           |                 | real-world                       |  | 1041 | 1459 |
| ThiruvadyWGS14 [484] | 34    | order, completion-time, resource, activity, tardiness, distributed, machine, precedence, task, job, make-span, scheduling   | psplib, single machine           | cumulative   |                |                               |   | mining industry | benchmark                        |  | 1042 | 1460 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work               | Pages | Concepts   | Classification | Constraints   | Prog Languages | CP Systems                                    | Areas  | Industries                            | Benchmarks   | Algorithm                                | a    | c    |
|--------------------|-------|--|----------------|---|----------------|---|--|---------------------------------------|--|--|------|------|
| Timpe02 [486]      | 18    | due-date, order, machine, inventory, task, job, activity, stock level, setup-time, resource, make-span, scheduling, producer/consumer  |                | cumulative, disjunctive, diffn, cycle               | C++            | CHIP, Cplex                                   |  | chemical industry, process industry   |  |  | 1110 | 1528 |
| TopalogluO11 [488] | 10    | order, re-scheduling, task, distributed, transportation, preempt, scheduling   |                |   |                | Cplex, OPL, OZ, Ilog Solver                   | surgery, nurse, medical, physician, emergency service, patient |                                       | real-life  | time-tabling                             | 1066 | 1484 |
| TranPZLDB18 [495]  | 17    | task, machine, preempt, distributed, re-scheduling, make-span, scheduling, completion-time, resource, order, job   | single machine | bin-packing   | C++            | Cplex, OZ                                     |  |                                       | benchmark, generated instance                          |  | 1011 | 1429 |
| TranVNB17 [497]    | 68    | resource, scheduling, multi-agent, precedence, order, task, machine, job, activity, re-scheduling, transportation  |                | noOverlap, alternative constraint, cumulative       |                | OPL, MiniZinc, Cplex                          | satellite, robot, medical                                      |                                       | real-world   |  | 1015 | 1433 |
| TrojetHL11 [500]   | 7     | order, job-shop, machine, activity, make-span, completion-time, job, precedence, distributed, resource, due-date, scheduling, task   | RCPS           | cumulative, diffn, disjunctive, cycle, alldifferent | Prolog         | OZ, CHIP, SICStus                             | robot  |                                       | real-world   |  | 1067 | 1485 |
| Tsang03 [501]      | 2     | resource, scheduling   |                |   |                |   |  |                                       | real-life  | time-tabling                             | 1106 | 1524 |
| VilimBC05 [517]    | 23    | setup-time, sequence dependent setup, distributed, job-shop, batch process, resource, scheduling, make-span, open-shop, completion-time, task, machine, precedence, order, job, activity |                | disjunctive, cumulative, cycle                      |                |   |  |                                       | benchmark, real-life                                   | not-first, sweep, edge-finding, not-last | 1099 | 1517 |
| VlkHT21 [520]      | 14    | tardiness, due-date, completion-time, order, distributed, precedence, resource, scheduling   | PMSP           | alternative constraint, noOverlap                   |                | OPL, Cplex, Gurobi, Z3                        | automotive, robot  |                                       | industrial partner, random instance, github, benchmark |  | 967  | 1385 |
| Wallace96 [522]    | 30    | job-shop, transportation, distributed, task, resource, scheduling, multi-agent, order, machine, job, activity  |                | circuit, disjunctive, cycle                         | Prolog, Lisp   | CHIP, Ilog Solver, ECLiPSe, OZ, OPL           | automotive, aircraft, railway, robot                           | process industry, automotive industry |  | time-tabling                             | 1135 | 1553 |
| WallaceY20 [523]   | 19    | scheduling, machine, flow-shop, order, transportation, job, lazy clause generation, resource, task, job-shop   | CHSP           | circuit, cumulative, disjunctive, cycle             |                | Chuffed, OPL, Gecode, Gurobi, Cplex, MiniZinc | robot, hoist, electroplating, yard crane, container terminal   |                                       | random instance, real-life, real-world, benchmark      | edge-finding, time-tabling               | 983  | 1401 |
| WangMD15 [526]     | 13    | make-span, scheduling, job, resource, activity, completion-time, job-shop, task, precedence, order, cmax, re-scheduling  |                | noOverlap, cumulative                               |                | OPL, Cplex, OZ                                | nurse, operating room, surgery, medical, physician, patient    |                                       | real-life, real-world                                  | time-tabling                             | 1035 | 1453 |



Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                  | Pages | Concepts   | Classification   | Constraints  | Prog Languages | CP Systems      | Areas   | Industries              | Benchmarks   | Algorithm              | a    | c    |
|-----------------------|-------|--|--|--|----------------|-----------------|---|-------------------------|--|------------------------|------|------|
| WikarekS19 [530]      | 22    | multi-agent, scheduling, machine, preempt, manpower, flow-shop, order, make-span, cmax, resource, inventory, job, precedence, distributed, setup-time, task, job-shop  | JSSP, RCPSP  | cumulative, dis-junctive                                       |                | OZ, Z3, ECLiPSe | robot   |                         |  |                        | 991  | 1409 |
| YounespourAKE19 [538] | 11    | precedence, re-scheduling, resource, inventory, order, scheduling, completion-time, cmax, activity, make-span, distributed, machine  |  | noOverlap, alternative constraint, span constraint, cumulative |                | OPL, Z3         | operating room, nurse, medical, surgery, patient  |                         | real-life, real-world  |                        | 992  | 1410 |
| YunusogluY22 [540]    | 18    | due-date, batch process, order, tardiness, job, cmax, make-span, release-date, re-scheduling, lateness, flow-time, precedence, completion-time, sequence dependent setup, job-shop, resource, activity, setup-time, earliness, preempt, scheduling, machine, inventory, transportation   | PMSP, parallel machine   | noOverlap, bin-packing, endBeforeStart, cumulative             |                | Cplex, OPL, OZ  | robot, medical  |                         | real-world, benchmark, generated instance, real-life, supplementary material |                        | 955  | 1373 |
| YuraszeckMCCR23 [543] | 11    | setup-time, cmax, activity, make-span, machine, open-shop, precedence, resource, preempt, batch process, task, flow-shop, order, scheduling, job, job-shop, flow-time  | RCPSP, Open Shop Scheduling Problem, JSSP, FJS, OSSP   | endBeforeStart, cumulative                                     |                | OPL, Cplex      |   | pharmaceutical industry | github, world, benchmark   |                        | 938  | 1356 |
| YuraszeckMPV22 [542]  | 26    | completion-time, sequence dependent setup, resource, setup-time, task, distributed, open-shop, machine, due-date, transportation, flow-shop, flow-time, job-shop, scheduling, order, job, re-scheduling, make-span, release-date   | Open Shop Scheduling Problem, OSSP, single machine, JSSP                                     | noOverlap, dis-junctive  | Java           | Cplex           | semiconductor automotive, robot   | manufacturing industry  | generated instance, github, benchmark, real-life                             |                        | 956  | 1374 |
| ZarandiASC20 [545]    | 93    | scheduling, order, machine, tardiness, flow-shop, job, inventory, cmax, re-scheduling, open-shop, task, batch process, distributed, lateness, flow-time, make-span, release-date, resource, activity, multi-agent, precedence, completion-time, sequence dependent setup, earliness, job-shop, transportation, due-date, setup-time, preempt | JSSP, single machine, PMSP, parallel machine, RCPSP, OSSP, FJS, Open Shop Scheduling Problem | disjunctive, cycle   | Prolog         | OPL, OZ         | satellite, robot, surgery, nurse, aircraft, drone, medical, semiconductor, operating room, railway, crew-scheduling, container terminal | textile industry        | real-world, benchmark, real-life   | max-flow, time-tabling | 984  | 1402 |
| ZarandiKS16 [544]     | 17    | make-span, job, scheduling, completion-time, resource, order, task, machine, preempt, earliness, distributed, due-date, tardiness, flow-shop, job-shop, transportation   | single machine   |  |                | Ilog Solver     | robot   |                         | real-world   | time-tabling           | 1025 | 1443 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                | Pages | Concepts  | Classification     | Constraints  | Prog Languages      | CP Systems   | Areas          | Industries | Benchmarks                    | Algorithm                                | a    | c    |
|---------------------|-------|---|--------------------|--|---------------------|--|----------------|------------|-------------------------------|--|------|------|
| ZeballosH05 [546]   | 10    | transportation, scheduling, buffer-capacity, completion-time, make-span, order, job, activity, due-date, resource, task, machine, tardiness, precedence   |                    |  |                     | Ilog Scheduler, OPL, Ilog Solver                     | robot          |            |                               |  | 1100 | 1518 |
| ZeballosQH10 [547]  | 20    | cmax, make-span, resource, activity, precedence, completion-time, earliness, job-shop, transportation, due-date, preempt, scheduling, order, machine, tardiness, job, task  |                    |  |                     | ECLiPSe, Ilog Solver, OZ, Cplex, Ilog Scheduler, OPL | robot          |            | benchmark, real-world         |  | 1074 | 1492 |
| ZhangW18 [551]      | 18    | job, completion-time, flow-shop, precedence, lateness, job-shop, re-scheduling, transportation, multi-agent, earliness, order, preempt, flow-time, make-span, distributed, resource, tardiness, scheduling, machine, setup-time | FJS                | noOverlap, cumulative                                  |                     | Cplex, Z3, OPL                                       | robot          |            | benchmark                     |  | 1012 | 1430 |
| ZhangYW21 [550]     | 10    | cmax, task, machine, job, activity, re-scheduling, release-date, setup-time, preempt, distributed, job-shop, batch process, resource, scheduling, multi-agent, make-span, precedence, order                                     | RCPSP              | endBeforeStart, disjunctive                            |                     | Cplex  | robot          |            | benchmark                     |  | 968  | 1386 |
| Zhou97 [554]        | 29    | release-date, job-shop, due-date, task, order, preempt, scheduling, precedence, completion-time, job, machine   |                    | cumulative, disjunctive                                | Prolog              | CHIP, Ilog Scheduler, Z3                             |                |            | benchmark                     | edge-finding, edge-finder                | 1134 | 1552 |
| ZouZ20 [559]        | 10    | resource, activity, task, order, scheduling, precedence, completion-time, distributed   |                    | cumulative, endBeforeStart, noOverlap, span constraint |                     | Cplex, OPL   | pipeline       |            | benchmark                     |  | 985  | 1403 |
| abs-0907-0939 [410] | 12    | resource, order, activity, due-date, preempt, scheduling, make-span, release-date, task   |                    | cumulative   | Java                | Choco Solver, CHIP                                   |                |            | real-world                    | sweep, energetic reasoning, edge-finding | 1083 | 1501 |
| abs-1009-0347 [443] | 37    | scheduling, make-span, machine, task, precedence, cmax, resource, order, activity, preempt, lazy clause generation  | RCPSP, psplib, SCC | cumulative, disjunctive, cycle                         | C++                 | Ilog Solver, Ilog Scheduler, CHIP, OZ                |                |            | benchmark, instance generator |  | 1075 | 1493 |
| abs-1901-07914 [66] | 8     | multi-agent, scheduling, order, resource, make-span, distributed, machine, task   |                    |  | Python              | OZ, MiniZinc, OR-Tools                               | robot          |            | benchmark, real-world, github |  | 993  | 1411 |
| abs-1902-01193 [10] | 9     | order, resource, activity, BOM, task, scheduling  |                    |  | C++, Prolog, Python | Ilog Solver, CHIP, OPL                               | medical, nurse |            |                               | time-tabling                             | 994  | 1412 |

Table 6: Automatically Extracted ARTICLE Properties (Requires Local Copy)

| Work                 | Pages | Concepts  | Classification   | Constraints  | Prog Languages | CP Systems                                | Areas   | Industries                               | Benchmarks   | Algorithm    | a   | c    |
|----------------------|-------|---|------------------|--|----------------|---|---|--|--|--------------|-----|------|
| abs-1902-09244 [228] | 62    | order, tardiness, completion-time, resource, setup-time, activity, inventory, task, machine, due-date, precedence, transportation, earliness, flow-shop, job-shop, scheduling, job, make-span, release-date | FJS, RCPSP       | cumulative, endBeforeStart, cycle  |                | Cplex, OZ, OPL                            | aircraft  | steel industry, food-processing industry | benchmark, industry partner, real-world  |              | 995 | 1413 |
| abs-1911-04766 [193] | 16    | release-date, scheduling, order, completion-time, job, re-scheduling, resource, make-span, activity, due-date, precedence, task   | RCPSP            | noOverlap, disjunctive, cumulative, alternative constraint, endBeforeStart | Java           | OZ, MiniZinc, CPO, Chuffed, Gecode, Cplex | automotive  |  | real-world, generated instance, industrial partner, github, benchmark, instance generator, real-life | time-tabling | 996 | 1414 |
| abs-2102-08778 [132] | 10    | open-shop, machine, task, flow-shop, job-shop, scheduling, order, job, resource, make-span  | JSSP             |  | Java           | OR-Tools, Cplex, OPL, MiniZinc, CPO       |   |  | generated instance, benchmark, real-life, real-world   |              | 969 | 1387 |
| abs-2211-14492 [466] | 17    | resource, setup-time, distributed, activity, due-date, precedence, task, flow-shop, machine, transportation, job-shop, scheduling, order, job, make-span, tardiness, completion-time, cmax                  | single machine   | bin-packing, cumulative, disjunctive                                       | Python         | Cplex, OR-Tools, OZ                       | semiconductor   |  | benchmark, random instance, generated instance   |              | 957 | 1375 |
| abs-2305-19888 [241] | 42    | scheduling, order, job, re-scheduling, make-span, completion-time, cmax, sequence dependent setup, preempt, resource, setup-time, distributed, activity, precedence, task, flow-shop, machine               | parallel machine | noOverlap, cumulative, alternative constraint                              |                | Gurobi                                    | robot   |  | real-world, generated instance, gitlab, benchmark  |              | 939 | 1357 |
| abs-2306-05747 [476] | 9     | job-shop, re-scheduling, flow-time, scheduling, order, completion-time, job, resource, make-span, tardiness, preempt, machine, precedence, task, flow-shop  | JSSP             | noOverlap, disjunctive, cumulative   | Java           | Choco Solver                              |   |  | real-world, supplementary material, github, industrial instance, benchmark                           |              | 940 | 1358 |
| abs-2312-13682 [408] | 20    | re-scheduling, scheduling, order, resource, make-span, activity, machine, transportation, inventory, task   |                  | cumulative, table constraint   |                | OPL                                       | steel mill, operating room, container terminal, nurse |  | real-world, generated instance   |              | 941 | 1359 |
| abs-2402-00459 [383] | 21    | machine, due-date, earliness, job-shop, scheduling, order, job, multi-agent, tardiness, completion-time, resource, precedence, task   | single machine   | disjunctive, bin-packing, cumulative                                       |                | OPL, OR-Tools                             |   | mining industry                          | instance generator, real-world, generated instance, github, benchmark                                |              | 924 | 1342 |

### 3.3 Manually Defined Fields

Table 7: Manually Defined ARTICLE Properties

| Key  | Title (Local Copy)  | CP System       | Bench   | Links | Data Avail  | Sol Avail | Code Avail | Based On   | Classification | Constraints  | a   | b    |
|--|---|-----------------|---|-------|-------------|-----------|------------|------------|----------------|--|-----|------|
| PrataAN23<br>PrataAN23 [420]                   | Applications of constraint programming in production scheduling problems: A descriptive bibliometric analysis                                 | -               | benchmark, real-world, real-life  | 1     | -           |           | -          | -          | survey         | -  | 923 | 1281 |
| abs-2402-00459<br>abs-2402-00459 [383]         | Genetic-based Constraint Programming for Resource Constrained Job Scheduling  | OR-Tools        | instance generator, real-world, generated instance, github, benchmark                 | 2     | y           |           | n          | -          | RCJS           | cumulatives  | 924 | 1340 |
| AbreuNP23<br>AbreuNP23 [143]                   | A new two-stage constraint programming approach for open shop scheduling problem with machine blocking  | ?               | real-world, benchmark   | 10    | ?           |           | ?          | ?          | ?              | ?  | 925 | 1153 |
| AbreuPNF23<br>AbreuPNF23 [3]                   | A constraint programming-based iterated greedy algorithm for the open shop with sequence-dependent processing times and makespan minimization |                 |   | 0     |             |           |            |            |                |  | 926 | No   |
| AkramNHRS23<br>AkramNHRS23 [9]                 | Joint Scheduling and Routing Optimization for Deterministic Hybrid Traffic in Time-Sensitive Networks Using Constraint Programming            | OR-Tools        | benchmark   | 0     | n           |           | n          | -          | TSN            | -  | 927 | 1155 |
| AlfieriGPS23<br>AlfieriGPS23 [11]              | Permutation flowshop problems minimizing core waiting time and core idle time   |                 | benchmark   | 0     |             |           |            |            |                |  | 928 | 1156 |
| Caballero23<br>Caballero23 [112]               | Scheduling through logic-based tools  | SAT             |   | 1     | -           |           | -          | PhD Thesis | RCPSP          | -  | 929 | 1189 |
| CzerniachowskaWZ23<br>CzerniachowskaWZ23 [136] | Constraint Programming for Flexible Flow Shop Scheduling Problem with Repeated Jobs and Repeated Operations                                   |                 | benchmark, Roadef, real-world   | 0     |             |           |            |            |                |  | 930 | 1193 |
| GurPAE23<br>GurPAE23 [220]                     | Operating room scheduling with surgical team: a new approach with constraint programming and goal programming                                 | Cplex           | real-life   | 0     | n           |           | n          | -          | -              | -  | 931 | 1213 |
| IsikYA23<br>IsikYA23 [262]                     | Constraint programming models for the hybrid flow shop scheduling problem and its extensions  | OPL<br>CP Opt   | real-world, benchmark, generated instance, real-life                                  | 4     | y           |           | y          | -          | HFSP           | alternative endBeforeStart noOverlap cumulative alternative noOverlap forbidExtent | 932 | 1227 |
| LacknerMMWW23<br>LacknerMMWW23 [310]           | Exact methods for the Oven Scheduling Problem   | MiniZinc<br>OPL | random instance, industrial partner, benchmark, instance generator, zenodo, real-life | 0     | DZN<br>JSON |           | y          | [309]      | OSP            |  | 933 | 1241 |
| MontemanniD23<br>MontemanniD23 [368]           | Solving the Parallel Drone Scheduling Traveling Salesman Problem via Constraint Programming   | OR-Tools        | benchmark, supplementary material   | 6     | ref         | y         | n          | -          | PDSTSP         | circuit  | 934 | 1259 |
| MontemanniD23a<br>MontemanniD23a [367]         | Constraint programming models for the parallel drone scheduling vehicle routing problem   | OR-Tools        | benchmark   | 0     | ref         |           | n          | -          | PDSTSP         | circuit multipleCircuit  | 935 | 1260 |
| NaderiRR23<br>NaderiRR23 [378]                 | Mixed-Integer Programming vs. Constraint Programming for Shop Scheduling Problems: New Results and Outlook                                    |                 | github, benchmark   | 8     |             |           |            |            |                |  | 936 | 1263 |
| ShaikhK23<br>ShaikhK23 [451]                   | Management of electronic ledger: a constraint programming approach for solving curricula scheduling problems                                  | ?               | benchmark, real-world   | 2     | ?           |           | ?          | ?          | ?              | ?  | 937 | 1294 |

Table 7: Manually Defined ARTICLE Properties

| Key  | Title (Local Copy)  | CP System        | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification       | Constraints                                      | a   | b    |
|--|---|------------------|--|-------|------------|-----------|------------|----------|----------------------|--|-----|------|
| YuraszekMCCR23<br>YuraszekMCCR23 [543]           | A Constraint Programming Formulation of the Multi-Mode Resource-Constrained Project Scheduling Problem for the Flexible Job Shop Scheduling Problem | CP Opt           | github, real-world, bench-<br>mark   | 0     | ref        |           | n          | -        | FJSSP                | alternative<br>endBeforeStart<br>cumulative      | 938 | 1319 |
| abs-2305-19888<br>abs-2305-19888 [241]           | Constraint Programming and Constructive Heuristics for Parallel Machine Scheduling with Sequence-Dependent Setups and Common Servers                | CP Opt<br>Gurobi | real-world, generated instance, gitlab, benchmark                                    | 1     | y          | y         | n          | -        | $P seq, ser C_{max}$ | alternative<br>noOverlap<br>cumulative           | 939 | 1337 |
| abs-2306-05747<br>abs-2306-05747 [476]           | An End-to-End Reinforcement Learning Approach for Job-Shop Scheduling Problems Based on Constraint Programming                                      | custom<br>Choco  | real-world, supplementary material, github, industrial instance, benchmark           | 0     | ref        |           | n          | -        | JSSP                 | noOverlap  | 940 | 1338 |
| abs-2312-13682<br>abs-2312-13682 [408]           | A Constraint Programming Model for Scheduling the Unloading of Trains in Ports: Extended  | custom           | real-world, generated instance   | 0     | n          |           | n          | -        | SUTP                 | table<br>disjunctive                             | 941 | 1339 |
| AbreuN22<br>AbreuN22 [142]                       | A new hybridization of adaptive large neighborhood search with constraint programming for open shop scheduling with sequence-dependent setup times  | Cplex<br>CP Opt  | real-world, benchmark  | 0     | y          |           | n          | -        | OSSPST               | noOverlap  | 942 | 1152 |
| BourreauGGLT22<br>BourreauGGLT22 [105]           | A constraint-programming based decomposition method for the Generalised Workforce Scheduling and Routing Problem (GWSRP)                            |                  | real-world, benchmark  | 2     |            |           |            |          |                      |  | 943 | 1187 |
| CampeauG22<br>CampeauG22 [113]                   | Short- and medium-term optimization of underground mine planning using constraint programming   | CP Opt           | real-life, real-world  | 0     | ref        |           | n          |          |                      | pulse<br>alwaysIn<br>endBeforeStart<br>noOverlap | 944 | 1190 |
| ColT22 ColT22 [134]                              | Industrial-size job shop scheduling with constraint programming   |                  | generated instance, supplementary material, github, real-life, benchmark, real-world | 4     |            |           |            |          |                      |  | 945 | 1192 |
| FarsiTM22<br>FarsiTM22 [172]                     | Integrated surgery scheduling by constraint programming and meta-heuristics   |                  | supplementary material   | 10    |            |           |            |          |                      |  | 946 | 1203 |
| Fatemi-AnarakiMFN22<br>Fatemi-AnarakiMFN22 [173] | Scheduling of Multi-Robot Job Shop Systems in Dynamic Environments: Mixed-Integer Linear Programming and Constraint Programming Approaches          |                  |  | 0     |            |           |            |          |                      |  | 947 | No   |
| FetgoD22<br>FetgoD22 [174]                       | Horizontally Elastic Edge-Finder Algorithm for Cumulative Resource Constraint Revisited   |                  | benchmark, real-world  | 7     |            |           |            |          |                      |  | 948 | 1204 |
| HeinzNVH22<br>HeinzNVH22 [240]                   | Constraint Programming and constructive heuristics for parallel machine scheduling with sequence-dependent setups and common servers                |                  | real-world, generated instance, benchmark, gitlab                                    | 3     |            |           |            |          |                      |  | 949 | 1219 |
| MullerMKP22<br>MullerMKP22 [372]                 | An algorithm selection approach for the flexible job shop scheduling problem: Choosing constraint programming solvers through machine learning      |                  | benchmark, random instance, real-world, github                                       | 3     |            |           |            |          |                      |  | 950 | 1261 |
| NaderiBZ22<br>NaderiBZ22 [377]                   | Integrated Order Acceptance and Resource Decisions Under Uncertainty: Robust and Stochastic Approaches  |                  | benchmark, real-life   | 0     |            |           |            |          |                      |  | 951 | 1262 |

Table 7: Manually Defined ARTICLE Properties

| Key   | Title (Local Copy)  | CP System   | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints          | a   | b    |
|---|---|---|--|-------|------------|-----------|------------|----------|----------------|----------------------|-----|------|
| PohlAK22<br>PohlAK22 [413]                    | Solving the time-discrete winter runway scheduling problem: A column generation and constraint programming approach                               |   | benchmark, real-world  | 2     |            |           |            |          |                |                      | 952 | 1278 |
| ShiYXQ22<br>ShiYXQ22 [453]                    | Solving the integrated process planning and scheduling problem using an enhanced constraint programming-based approach                            |   |  | 0     |            |           |            |          |                |                      | 953 | No   |
| SubulanC22<br>SubulanC22 [465]                | Constraint programming-based transformation approach for a mixed fuzzy-stochastic resource investment project scheduling problem                  |   | real-life, benchmark, real-world   | 2     |            |           |            |          |                |                      | 954 | 1300 |
| YunusogluY22<br>YunusogluY22 [540]            | Constraint programming approach for multi-resource-constrained unrelated parallel machine scheduling problem with sequence-dependent setup times  |   | real-world, benchmark, generated instance, real-life, supplementary material | 10    |            |           |            |          |                |                      | 955 | 1318 |
| YuraszeckMPV22<br>YuraszeckMPV22 [542]        | A Novel Constraint Programming Decomposition Approach for the Total Flow Time Fixed Group Shop Scheduling Problem                                 |   | generated instance, github, benchmark, real-life                             | 5     |            |           |            |          |                |                      | 956 | 1320 |
| abs-2211-14492<br>abs-2211-14492 [466]        | Enhancing Constraint Programming via Supervised Learning for Job Shop Scheduling  |   | benchmark, random instance, generated instance                               | 1     |            |           |            |          |                |                      | 957 | 1336 |
| AbohashimaEG21<br>AbohashimaEG21 [2]          | A Mathematical Programming Model and a Firefly-Based Heuristic for Real-Time Traffic Signal Scheduling With Physical Constraints                  |   | real-world, generated instance, github                                       | 0     |            |           |            |          |                |                      | 958 | 1150 |
| AbreuAPNM21<br>AbreuAPNM21 [141]              | A new variable neighbourhood search with a constraint programming search strategy for the open shop scheduling problem with operation repetitions |   | generated instance, benchmark, real-world                                    | 8     |            |           |            |          |                |                      | 959 | 1151 |
| Bedhief21<br>Bedhief21 [63]                   | Comparing Mixed-Integer Programming and Constraint Programming Models for the Hybrid Flow Shop Scheduling Problem with Dedicated Machines         |   | real-life  | 0     |            |           |            |          |                |                      | 960 | 1173 |
| FanXG21<br>FanXG21 [171]                      | Genetic programming-based hyper-heuristic approach for solving dynamic job shop scheduling problem with extended technical precedence constraints |   | benchmark  | 0     |            |           |            |          |                |                      | 961 | 1202 |
| HamPK21<br>HamPK21 [223]                      | Energy-Aware Flexible Job Shop Scheduling Using Mixed Integer Programming and Constraint Programming  |   | benchmark, github  | 4     |            |           |            |          |                |                      | 962 | 1216 |
| HubnerGSV21<br>HubnerGSV21 [260]              | Solving the nuclear dismantling project scheduling problem by combining mixed-integer and constraint programming techniques and metaheuristics    |   | benchmark, real-life   | 4     |            |           |            |          |                |                      | 963 | 1226 |
| KoehlerBFFHPSSS21<br>KoehlerBFFH-PSSS21 [285] | Cable tree wiring - benchmarking solvers on a real-world scheduling problem with a variety of precedence constraints                              | CP Opt<br>OR-Tools<br>Chuffed<br>Cplex<br>Gurobi<br>Z3<br>OptiMathSat | real-world, benchmark, github  | 9     | DZN        |           | y          | -        | CTW            | alldifferent inverse | 964 | 1232 |
| PandeyS21a<br>PandeyS21a [401]                | Constraint programming versus heuristic approach to MapReduce scheduling problem in Hadoop YARN for energy minimization                           |   | benchmark  | 1     |            |           |            |          |                |                      | 965 | 1275 |

Table 7: Manually Defined ARTICLE Properties

| Key  | Title (Local Copy)  | CP System     | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b    |
|--|---|---------------|--|-------|------------|-----------|------------|----------|----------------|-------------|-----|------|
| QinWSLS21<br>QinWSLS21 [422]                 | A Genetic Programming-Based Scheduling Approach for Hybrid Flow Shop With a Batch Processor and Waiting Time Constraint                                       |               |  | 0     |            |           |            |          |                |             | 966 | 1283 |
| VlkHT21 VlkHT21 [520]                        | Constraint programming approaches to joint routing and scheduling in time-sensitive networks  |               | industrial partner, random instance, github, benchmark | 0     |            |           |            |          |                |             | 967 | 1312 |
| ZhangYW21<br>ZhangYW21 [550]                 | A graph-based constraint programming approach for the integrated process planning and scheduling problem  |               | benchmark  | 0     |            |           |            |          |                |             | 968 | 1326 |
| abs-2102-08778<br>abs-2102-08778 [132]       | Large-Scale Benchmarks for the Job Shop Scheduling Problem  |               | generated instance, benchmark, real-life, real-world   | 0     |            |           |            |          |                |             | 969 | 1335 |
| AlizdehS20<br>AlizdehS20 [12]                | Fuzzy project scheduling with critical path including risk and resource constraints using linear programming  |               |  | 0     |            |           |            |          |                |             | 970 | No   |
| AstrandJZ20<br>AstrandJZ20 [28]              | Underground mine scheduling of mobile machines using Constraint Programming and Large Neighborhood Search   |               | benchmark, real-world, real-life                       | 0     |            |           |            |          |                |             | 971 | 1158 |
| BadicaBI20<br>BadicaBI20 [29]                | Block structured scheduling using constraint logic programming  |               | real-world, benchmark                                  | 5     |            |           |            |          |                |             | 972 | 1159 |
| BenediktMH20<br>BenediktMH20 [75]            | Power of pre-processing: production scheduling with variable energy pricing and power-saving states   | CP Opt Gurobi | github, benchmark, random instance, generated instance | 4     | JSON       |           | y          |          |                |             | 973 | 1178 |
| CauwelaertDS20<br>CauwelaertDS20 [123]       | An Efficient Filtering Algorithm for the Unary Resource Constraint with Transition Times and Optional Activities  |               |  | 0     |            |           |            |          |                |             | 974 | No   |
| FallahiAC20<br>FallahiAC20 [170]             | Tabu search and constraint programming-based approach for a real scheduling and routing problem   |               | github, real-life                                      | 0     |            |           |            |          |                |             | 975 | 1201 |
| LunardiBLRV20<br>LunardiBLRV20 [343]         | Mixed Integer linear programming and constraint programming models for the online printing shop scheduling problem  |               | benchmark, random instance, generated instance, github | 1     |            |           |            |          |                |             | 976 | 1252 |
| MejiaY20<br>MejiaY20 [358]                   | A self-tuning variable neighborhood search algorithm and an effective decoding scheme for open shop scheduling problems with travel/setup times               |               | supplementary material, benchmark, generated instance  | 2     |            |           |            |          |                |             | 977 | 1256 |
| MengZRZL20<br>MengZRZL20 [360]               | Mixed-integer linear programming and constraint programming formulations for solving distributed flexible job shop scheduling problem                         |               | supplementary material, benchmark                      | 0     |            |           |            |          |                |             | 978 | 1257 |
| MokhtarzadehTNF20<br>MokhtarzadehTNF20 [364] | Scheduling of human-robot collaboration in assembly of printed circuit boards: a constraint programming approach  |               | generated instance, real-world                         | 12    |            |           |            |          |                |             | 979 | 1258 |
| Polo-MejiaALB20<br>Polo-MejiaALB20 [414]     | Mixed-integer/linear and constraint programming approaches for activity scheduling in a nuclear research facility   |               | Roadef, github   | 2     |            |           |            |          |                |             | 980 | 1279 |
| QinDCS20<br>QinDCS20 [423]                   | Combining mixed integer programming and constraint programming to solve the integrated scheduling problem of container handling operations of a single vessel |               | real-life, benchmark                                   | 0     |            |           |            |          |                |             | 981 | 1282 |

Table 7: Manually Defined ARTICLE Properties

| Key                                      | Title (Local Copy)   | CP System | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a   | b    |
|--|--|-----------|--|-------|------------|-----------|------------|----------|----------------|-------------|-----|------|
| SacramentoSP20<br>SacramentoSP20 [433]   | Constraint Programming and Local Search Heuristic: a Matheuristic Approach for Routing and Scheduling Feeder Vessels in Multi-terminal Ports |           | benchmark, real-life, zen-odo, real-world  | 4     |            |           |            |          |                |             | 982 | 1287 |
| WallaceY20<br>WallaceY20 [523]           | A new constraint programming model and solving for the cyclic hoist scheduling problem   | MiniZinc  | random instance, real-life, real-world, benchmark  | 2     | DZN        |           | y          |          | CHSP           |             | 983 | 1314 |
| ZarandiASC20<br>ZarandiASC20 [545]       | A state of the art review of intelligent scheduling  |           | real-world, benchmark, real-life   | 0     |            |           |            |          |                |             | 984 | 1321 |
| ZouZ20 ZouZ20 [559]                      | A constraint programming approach for scheduling repetitive projects with atypical activities considering soft logic                         |           | benchmark  | 3     |            |           |            |          |                |             | 985 | 1328 |
| EscobetQPRA19<br>EscobetQPRA19 [165]     | Optimal batch scheduling of a multiproduct dairy process using a combined optimization/constraint programming approach                       |           |  | 1     |            |           |            |          |                |             | 986 | 1197 |
| GurEA19<br>GurEA19 [560]                 | Surgical Operation Scheduling with Goal Programming and Constraint Programming: A Case Study   |           | real-life  | 11    |            |           |            |          |                |             | 987 | 1212 |
| NishikawaSTT19<br>NishikawaSTT19 [386]   | A Constraint Programming Approach to Scheduling of Malleable Tasks   |           | real-world, benchmark  | 0     |            |           |            |          |                |             | 988 | 1266 |
| Novas19 Novas19 [388]                    | Production scheduling and lot streaming at flexible job-shops environments using constraint programming                                      |           | benchmark  | 0     |            |           |            |          |                |             | 989 | 1268 |
| WariZ19 WariZ19 [527]                    | A Constraint Programming model for food processing industry: a case for an ice cream processing facility                                     |           |  | 0     |            |           |            |          |                |             | 990 | No   |
| WikarekS19<br>WikarekS19 [530]           | A Constraint-Based Declarative Programming Framework for Scheduling and Resource Allocation Problems   |           |  | 0     |            |           |            |          |                |             | 991 | 1316 |
| YounespourAKE19<br>YounespourAKE19 [538] | Using mixed integer programming and constraint programming for operating rooms scheduling with modified block strategy                       |           | real-life, real-world  | 6     |            |           |            |          |                |             | 992 | 1317 |
| abs-1901-07914<br>abs-1901-07914 [66]    | A Constraint Programming Approach to Simultaneous Task Allocation and Motion Scheduling for Industrial Dual-Arm Manipulation Tasks           |           | benchmark, real-world, github  | 0     |            |           |            |          |                |             | 993 | 1331 |
| abs-1902-01193<br>abs-1902-01193 [10]    | Solving Nurse Scheduling Problem Using Constraint Programming Technique  |           |  | 0     |            |           |            |          |                |             | 994 | 1332 |
| abs-1902-09244<br>abs-1902-09244 [228]   | On constraint programming for a new flexible project scheduling problem with resource constraints  |           | benchmark, industry partner, real-world  | 0     |            |           |            |          |                |             | 995 | 1333 |
| abs-1911-04766<br>abs-1911-04766 [193]   | Investigating Constraint Programming and Hybrid Methods for Real World Industrial Test Laboratory Scheduling                                 |           | real-world, generated instance, industrial partner, github, benchmark, instance generator, real-life | 10    |            |           |            |          |                |             | 996 | 1334 |
| BaptisteB18<br>BaptisteB18 [35]          | Redundant cumulative constraints to compute preemptive bounds  |           |  | 1     |            |           |            |          |                |             | 997 | 1162 |
| BorghesiBLMB18<br>BorghesiBLMB18 [102]   | Scheduling-based power capping in high performance computing systems   |           | benchmark, real-life   | 3     |            |           |            |          |                |             | 998 | 1186 |



Table 7: Manually Defined ARTICLE Properties

| Key                                    | Title (Local Copy)  | CP System                    | Bench   | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints                    | a    | b    |
|--|---|------------------------------|---|-------|------------|-----------|------------|----------|----------------|--------------------------------|------|------|
| CauwelaertLS18<br>CauwelaertLS18 [122] | How efficient is a global constraint in practice? - A fair experimental framework   | Choco                        | bitbucket, benchmark                                      | 1     |            |           |            |          |                |                                | 999  | 1191 |
| FahimiOQ18<br>FahimiOQ18 [168]         | Linear-time filtering algorithms for the disjunctive constraint and a quadratic filtering algorithm for the cumulative not-first not-last   |                              | benchmark, random instance                                | 0     | (y)        |           | n          |          | RCPSP          | disjunctive<br>cumulative      | 1000 | 1199 |
| GedikKEK18<br>GedikKEK18 [191]         | A constraint programming approach for solving unrelated parallel machine scheduling problem   |                              | benchmark   | 9     |            |           |            |          |                |                                | 1001 | 1207 |
| GokgurHO18<br>GokgurHO18 [205]         | Parallel machine scheduling with tool loading: a constraint programming approach  | OP Opt                       | real-life, real-world                                     | 9     |            |           |            |          |                |                                | 1002 | 1209 |
| GoldwaserS18<br>GoldwaserS18 [207]     | Optimal Torpedo Scheduling  |                              | instance generator, github, benchmark, generated instance | 0     |            |           |            |          |                |                                | 1003 | 1210 |
| Ham18 Ham18 [222]                      | Integrated scheduling of m-truck, m-drone, and m-depot constrained by time-window, drop-pickup, and m-visit using constraint programming  |                              |   | 7     |            |           |            |          |                |                                | 1004 | 1215 |
| HookerH18<br>HookerH18 [257]           | Constraint programming and operations research  | OP Opt                       | real-world, real-life                                     | 1     |            |           |            |          |                |                                | 1005 | 1225 |
| KreterSSZ18<br>KreterSSZ18 [300]       | Mixed-integer linear programming and constraint programming formulations for solving resource availability cost problems  |                              |   | 0     |            |           |            |          |                |                                | 1006 | No   |
| LaborieRSV18<br>LaborieRSV18 [308]     | IBM ILOG CP optimizer for scheduling - 20+ years of scheduling with constraints at IBM/ILOG   |                              | real-world, CSPLib, benchmark                             | 3     | -          |           | -          | -        | -              | -                              | 1007 | 1240 |
| PourDERB18<br>PourDERB18 [416]         | A hybrid Constraint Programming/Mixed Integer Programming framework for the preventive signaling maintenance crew scheduling problem  | MiniZinc<br>Chuffed<br>Cplex | real-life, benchmark, real-world, generated instance      | 1     |            |           |            |          |                |                                | 1008 | 1280 |
| ShinBBHO18<br>ShinBBHO18 [454]         | Discrete-Event Simulation and Integer Linear Programming for Constraint-Aware Resource Scheduling   |                              | github, real-world  | 4     |            |           |            |          |                |                                | 1009 | 1295 |
| TangLWSK18<br>TangLWSK18 [473]         | Scheduling Optimization of Linear Schedule with Constraint Programming  |                              |   | 0     |            |           |            |          |                |                                | 1010 | 1302 |
| TranPZLDB18<br>TranPZLDB18 [495]       | Multi-stage resource-aware scheduling for data centers with heterogeneous servers   | MiniZinc<br>Chuffed<br>Cplex | benchmark, generated instance                             | 2     |            |           |            |          |                |                                | 1011 | 1307 |
| ZhangW18<br>ZhangW18 [551]             | Flexible Assembly Job-Shop Scheduling With Sequence-Dependent Setup Times and Part Sharing in a Dynamic Environment: Constraint Programming Model, Mixed-Integer Programming Model, and Dispatching Rules |                              | benchmark   | 0     |            |           |            |          |                |                                | 1012 | 1325 |
| KreterSS17<br>KreterSS17 [299]         | Using constraint programming for solving RCPSP/max-cal  |                              | benchmark   | 5     | dead       |           |            | [298]    | RCPSP          | cumulative<br>cumulativeCalend | 1013 | 1237 |
| NattafAL17<br>NattafAL17 [380]         | Cumulative scheduling with variable task profiles and concave piecewise linear processing rate functions  | MiniZinc<br>Chuffed<br>Cplex | real-world  | 2     | n          |           | n          | -        | CECSP          | -                              | 1014 | 1265 |
| TranVNB17<br>TranVNB17 [497]           | Robots in Retirement Homes: Applying Off-the-Shelf Planning and Scheduling to a Team of Assistive Robots  |                              | real-world  | 0     |            |           |            |          |                |                                | 1015 | 1308 |
| BlomPS16<br>BlomPS16 [88]              | A Decomposition-Based Algorithm for the Scheduling of Open-Pit Networks Over Multiple Time Periods  |                              |   | 0     |            |           |            |          |                |                                | 1016 | No   |

Table 7: Manually Defined ARTICLE Properties

| Key                                    | Title (Local Copy)   | CP System                 | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On   | Classification | Constraints                | a    | b    |
|--|--|---------------------------|--|-------|------------|-----------|------------|------------|----------------|----------------------------|------|------|
| Bonfietti16<br>Bonfietti16 [93]        | A constraint programming scheduling solver for the MPOpt programming environment   |                           | benchmark  | 10    |            |           |            |            |                |                            | 1017 | 1184 |
| BridiBLMB16<br>BridiBLMB16 [107]       | A Constraint Programming Scheduler for Heterogeneous High-Performance Computing Machines   |                           | real-world, real-life                                  | 0     |            |           |            |            |                |                            | 1018 | 1188 |
| DoulabiRP16<br>DoulabiRP16 [159]       | A Constraint-Programming-Based Branch-and-Price-and-Cut Approach for Operating Room Planning and Scheduling  |                           | real-world, generated instance                         | 3     |            |           |            |            |                |                            | 1019 | 1196 |
| HamC16 HamC16 [224]                    | Flexible job shop scheduling problem with parallel batch processing machines: MIP and CP approaches  |                           |  | 0     |            |           |            |            |                |                            | 1020 | No   |
| HebrardHJMPV16<br>HebrardHJMPV16 [231] | Approximation of the parallel machine scheduling problem with additional unit resources  |                           | industrial partner                                     | 0     |            |           |            |            |                |                            | 1021 | 1217 |
| KuB16 KuB16 [301]                      | Mixed Integer Programming models for job shop scheduling: A computational analysis   |                           |  | 0     |            |           |            |            |                |                            | 1022 | No   |
| NovaraNH16<br>NovaraNH16 [387]         | A novel constraint programming model for large-scale scheduling problems in multiproduct multistage batch plants: Limited resources and campaign-based operation |                           | CSPLib, benchmark                                      | 5     |            |           |            |            |                |                            | 1023 | 1267 |
| TranAB16<br>TranAB16 [492]             | Decomposition Methods for the Parallel Machine Scheduling Problem with Setups  |                           |  | 0     |            |           |            |            |                |                            | 1024 | No   |
| ZarandiKS16<br>ZarandiKS16 [544]       | A constraint programming model for the scheduling of JIT cross-docking systems with preemption   |                           | real-world   | 0     |            |           |            |            |                |                            | 1025 | 1322 |
| BajestaniB15<br>BajestaniB15 [33]      | A two-stage coupled algorithm for an integrated maintenance planning and flowshop scheduling problem with deteriorating machines                                 |                           | real-world   | 0     |            |           |            |            |                |                            | 1026 | 1161 |
| EvenSH15a<br>EvenSH15a [167]           | A Constraint Programming Approach for Non-Preemptive Evacuation Scheduling   |                           | real-world, real-life                                  | 2     |            |           |            |            |                |                            | 1027 | 1198 |
| GoelSHFS15<br>GoelSHFS15 [204]         | Constraint programming for LNG ship scheduling and inventory management  |                           |  | 0     |            |           |            |            |                |                            | 1028 | 1208 |
| GrimesH15<br>GrimesH15 [212]           | Solving Variants of the Job Shop Scheduling Problem Through Conflict-Directed Search   |                           |  | 0     |            |           |            |            |                |                            | 1029 | No   |
| Kameugne15<br>Kameugne15 [271]         | Propagation techniques of resource constraint for cumulative scheduling  | -                         |  | 2     | -          |           | -          | PhDThesis  | RCPSP          |                            | 1030 | 1228 |
| LetortCB15<br>LetortCB15 [318]         | Synchronized sweep algorithms for scalable scheduling constraints  | Choco<br>SICStus          | generated instance, RoadeF, benchmark, random instance | 4     | dead       |           | -          | [317]      | -              | cumulative dimCumulativePr | 1031 | 1243 |
| NattafAL15<br>NattafAL15 [379]         | A hybrid exact method for a scheduling problem with a continuous resource and energy constraints   | Cplex                     | generated instance                                     | 1     | n          |           | n          |            | CSCSP          |                            | 1032 | 1264 |
| Siala15 Siala15 [455]                  | Search, propagation, and learning in sequencing and scheduling problems  | -                         | benchmark  | 2     | -          |           | -          | PhD Thesis |                |                            | 1033 | 1296 |
| SimoninAHL15<br>SimoninAHL15 [459]     | Scheduling scientific experiments for comet exploration  | MOST<br>Ilog<br>Scheduler |  | 0     | n          |           | n          | [458]      |                | cumulative dataTransfer    | 1034 | 1297 |
| WangMD15<br>WangMD15 [526]             | Scheduling operating theatres: Mixed integer programming vs. constraint programming  |                           | real-life, real-world                                  | 2     |            |           |            |            |                |                            | 1035 | 1315 |
| BlomBPS14<br>BlomBPS14 [87]            | A Decomposition-Based Heuristic for Collaborative Scheduling in a Network of Open-Pit Mines  |                           |  | 0     |            |           |            |            |                |                            | 1036 | No   |

Table 7: Manually Defined ARTICLE Properties

| Key                                    | Title (Local Copy)  | CP System                     | Bench   | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification     | Constraints                 | a    | b    |
|--|---|-------------------------------|---|-------|------------|-----------|------------|----------|--------------------|-----------------------------|------|------|
| BonfiettiLBM14<br>BonfiettiLBM14 [96]  | CROSS cyclic resource-constrained scheduling solver   |                               | real-world, generated instance, industrial instance, benchmark                | 0     |            |           |            |          |                    |                             | 1037 | 1185 |
| GrimesIOS14<br>GrimesIOS14 [214]       | Analyzing the impact of electricity price forecasting on energy cost-aware scheduling                                   |                               | real-world, real-life   | 9     |            |           |            |          |                    |                             | 1038 | 1211 |
| KameugneFSN14<br>KameugneFSN14 [275]   | A quadratic edge-finding filtering algorithm for cumulative resource constraints  | Gecode                        | random instance, benchmark  | 2     | y          |           |            | [274]    | CuSP               | cumulative                  | 1039 | 1229 |
| NovasH14<br>NovasH14 [391]             | Integrated scheduling of resource-constrained flexible manufacturing systems using constraint programming               |                               | benchmark   | 0     |            |           |            |          |                    |                             | 1040 | 1271 |
| TerekhovTDB14<br>TerekhovTDB14 [480]   | Integrating Queueing Theory and Scheduling for Dynamic Scheduling Problems  |                               | real-world  | 0     |            |           |            |          |                    |                             | 1041 | 1303 |
| ThiruvadyWGS14<br>ThiruvadyWGS14 [484] | A Lagrangian relaxation and ACO hybrid for resource constrained project scheduling with discounted cash flows           |                               | benchmark   | 0     |            |           |            |          |                    |                             | 1042 | 1304 |
| BajestaniB13<br>BajestaniB13 [32]      | Scheduling a Dynamic Aircraft Repair Shop with Limited Repair Resources   |                               |   | 0     |            |           |            |          |                    |                             | 1043 | 1160 |
| BegB13 BegB13 [64]                     | A constraint programming approach for integrated spatial and temporal scheduling for clustered architectures            |                               | benchmark   | 0     |            |           |            |          |                    |                             | 1044 | 1174 |
| HeinzSB13<br>HeinzSB13 [239]           | Using dual presolving reductions to reformulate cumulative constraints  | Cplex<br>SCIP                 | benchmark   | 1     | ref        |           | -          | -        | RCPSP<br>RCPSP/max | cumulative                  | 1045 | 1220 |
| OzturkTHO13<br>OzturkTHO13 [400]       | Balancing and scheduling of flexible mixed model assembly lines   | Ilog Solver<br>Ilog Scheduler | real-world, real-life   | 2     | y          |           | -          | -        | SBSFMMAL           | alldifferent<br>disjunctive | 1046 | 1274 |
| SchuttFSW13<br>SchuttFSW13 [445]       | Solving RCPSP/max by lazy clause generation   | Cplex                         | benchmark, supplementary material   | 6     |            |           |            |          |                    |                             | 1047 | 1293 |
| HeinzSSW12<br>HeinzSSW12 [237]         | Solving steel mill slab design problems   |                               | real-world, CSPLib  | 2     | Cplex      |           | dead       | -        | SMSDP              | -                           | 1048 | 1221 |
| LimtanyakulS12<br>LimtanyakulS12 [325] | Improvements of constraint programming and hybrid methods for scheduling of tests on vehicle prototypes                 | Cplex<br>Ilog Scheduler       | random instance, real-life, generated instance, industrial partner, benchmark | 1     | dead       |           | -          | -        |                    |                             | 1049 | 1245 |
| LombardiM12<br>LombardiM12 [337]       | Optimal methods for resource allocation and scheduling: a cross-disciplinary survey                                     | -                             | real-world, benchmark   | 0     | -          |           | -          | -        | survey             | -                           | 1050 | 1247 |
| LombardiM12a<br>LombardiM12a [336]     | A min-flow algorithm for Minimal Critical Set detection in Resource Constrained Project Scheduling                      |                               | benchmark   | 1     |            |           |            |          |                    |                             | 1051 | 1248 |
| NovasH12<br>NovasH12 [390]             | A comprehensive constraint programming approach for the rolling horizon-based scheduling of automated wet-etch stations |                               |   | 0     |            |           |            |          |                    |                             | 1052 | 1270 |
| TerekhovDOB12<br>TerekhovDOB12 [479]   | Solving two-machine assembly scheduling problems with inventory constraints   |                               |   | 0     |            |           |            |          |                    |                             | 1053 | No   |
| BandaSC11<br>BandaSC11 [144]           | Solving Talent Scheduling with Dynamic Programming  |                               |   | 0     |            |           |            |          |                    |                             | 1054 | No   |
| BartakS11<br>BartakS11 [46]            | Constraint satisfaction for planning and scheduling problems  | -                             | random instance, real-world, real-life  | 2     | -          |           | -          |          | survey             |                             | 1055 | 1165 |

Table 7: Manually Defined ARTICLE Properties

| Key                  | Title (Local Copy)   | CP System      | Bench  | Links | Data Avail | Sol Avail | Code Avail | Based On   | Classification | Constraints | a    | b    |
|----------------------|--|----------------|--|-------|------------|-----------|------------|------------|----------------|-------------|------|------|
| BeckFW11             | Combining Constraint Programming and Local Search for Job-Shop Scheduling  |                | real-world, benchmark                          | 0     |            |           |            |            |                |             | 1056 | 1170 |
| BeckFW11 [55]        |  |                | benchmark                                      | 1     |            |           |            |            |                |             | 1057 | 1176 |
| BeldiceanuCDP11      | New filtering for the <i>cumulative</i> constraint in the context of non-overlapping rectangles                                |                |  |       |            |           |            |            |                |             |      |      |
| BeldiceanuCDP11 [69] |  |                |  |       |            |           |            |            |                |             |      |      |
| BeniniLMR11          | Optimal resource allocation and scheduling for the CELL BE platform  |                | benchmark, real-world, instance generator      | 0     |            |           |            |            |                |             | 1058 | 1179 |
| BeniniLMR11 [78]     |  |                |  |       |            |           |            |            |                |             |      |      |
| HachemiGR11          | A hybrid constraint programming approach to the log-truck scheduling problem   |                |  | 1     |            |           |            |            |                |             | 1059 | 1214 |
| HachemiGR11 [221]    |  |                |  |       |            |           |            |            |                |             |      |      |
| HeckmanB11           | Understanding the behavior of Solution-Guided Search for job-shop scheduling   |                | benchmark, real-world                          | 0     |            |           |            |            |                |             | 1060 | 1218 |
| HeckmanB11 [234]     |  |                |  |       |            |           |            |            |                |             |      |      |
| KelbelH11            | Solving production scheduling with earliness/tardiness penalties by constraint programming                                     |                | benchmark, random instance, generated instance | 3     |            |           |            |            |                |             | 1061 | 1230 |
| KelbelH11 [278]      |  |                |  |       |            |           |            |            |                |             |      |      |
| KovacsB11            | A global constraint for total weighted completion time for unary resources   | Ilog Scheduler | benchmark                                      | 2     | n          |           | n          | -          |                | Completion  | 1062 | 1235 |
| KovacsB11 [292]      |  |                |  |       |            |           |            |            |                |             |      |      |
| KovacsK11            | Constraint programming approach to a bilevel scheduling problem  | Ilog Solver    |  | 2     | n          |           | n          | -          | Bilevel Opt    |             | 1063 | 1236 |
| KovacsK11 [294]      |  |                |  |       |            |           |            |            |                |             |      |      |
| SchausHMCMD11        | Solving Steel Mill Slab Problems with constraint-based techniques: CP, LNS, and CBLs   | Comet          | benchmark, CSPLib, generated instance          | 3     | dead       |           |            |            | SMSDP          |             | 1064 | 1290 |
| SchausHMCMD11 [437]  |  |                |  |       |            |           |            |            |                |             |      |      |
| SchuttFSW11          | Explaining the cumulative propagator   | MiniZinc       | benchmark, real-world                          | 7     | PSPLib     |           | -          | -          | RCPSP          | cumulative  | 1065 | 1292 |
| SchuttFSW11 [444]    |  |                |  |       |            |           |            |            |                |             |      |      |
| TopalogluO11         | A constraint programming-based solution approach for medical resident scheduling problems                                      |                | real-life                                      | 2     |            |           |            |            |                |             | 1066 | 1306 |
| TopalogluO11 [488]   |  |                |  |       |            |           |            |            |                |             |      |      |
| TrojetHL11           | Project scheduling under resource constraints: Application of the cumulative global constraint in a decision support framework |                | real-world                                     | 2     |            |           |            |            |                |             | 1067 | 1309 |
| TrojetHL11 [500]     |  |                |  |       |            |           |            |            |                |             |      |      |
| BartakCS10           | Discovering implied constraints in precedence graphs with alternatives   |                | benchmark, real-life, real-world               | 3     |            |           |            |            |                |             | 1068 | 1164 |
| BartakCS10 [45]      |  |                |  |       |            |           |            |            |                |             |      |      |
| BartakSR10           | New trends in constraint satisfaction, planning, and scheduling: a survey  |                | real-life, real-world                          | 0     |            |           |            |            |                |             | 1069 | 1166 |
| BartakSR10 [47]      |  |                |  |       |            |           |            |            |                |             |      |      |
| HartmannB10          | A survey of variants and extensions of the resource-constrained project scheduling problem                                     |                |  | 0     |            |           |            |            |                |             | 1070 | No   |
| HartmannB10 [227]    |  |                |  |       |            |           |            |            |                |             |      |      |
| LombardiM10a         | Allocation and scheduling of Conditional Task Graphs   |                | real-world, benchmark, real-life               | 3     |            |           |            |            |                |             | 1071 | 1246 |
| LombardiM10a [334]   |  |                |  |       |            |           |            |            |                |             |      |      |
| LopesCSM10           | A hybrid model for a multiproduct pipeline planning and scheduling problem   | Ilog Solver    | benchmark, real-world                          | 2     | -          |           | -          | [371, 370] |                |             | 1072 | 1249 |
| LopesCSM10 [339]     |  |                |  |       |            |           |            |            |                |             |      |      |
| NovashH10            | Reactive scheduling framework based on domain knowledge and constraint programming   |                |  | 0     |            |           |            |            |                |             | 1073 | 1269 |
| NovashH10 [389]      |  |                |  |       |            |           |            |            |                |             |      |      |
| ZeballosQH10         | A constraint programming model for the scheduling of flexible manufacturing systems with machine and tool limitations          |                | benchmark, real-world                          | 4     |            |           |            |            |                |             | 1074 | 1324 |
| ZeballosQH10 [547]   |  |                |  |       |            |           |            |            |                |             |      |      |
| abs-1009-0347        | Solving the Resource Constrained Project Scheduling Problem with Generalized Precedences by Lazy Clause Generation             |                | benchmark, instance generator                  | 0     |            |           |            |            |                |             | 1075 | 1330 |
| abs-1009-0347 [443]  |  |                |  |       |            |           |            |            |                |             |      |      |
| BidotVLB09           | A theoretic and practical framework for scheduling in a stochastic environment   |                | real-world, real-life                          | 0     |            |           |            |            |                |             | 1076 | 1181 |
| BidotVLB09 [82]      |  |                |  |       |            |           |            |            |                |             |      |      |
| BocewiczBB09         | Logic-algebraic method based and constraints programming driven approach to AGVs scheduling                                    |                |  | 0     |            |           |            |            |                |             | 1077 | 1183 |
| BocewiczBB09 [89]    |  |                |  |       |            |           |            |            |                |             |      |      |

Table 7: Manually Defined ARTICLE Properties

| Key                                    | Title (Local Copy)  | CP System                      | Bench                         | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints   | a    | b    |
|--|---|--------------------------------|-------------------------------|-------|------------|-----------|------------|----------|----------------|---|------|------|
| GarridoAO09<br>GarridoAO09 [185]       | A constraint programming formulation for planning: from plan scheduling to plan generation  |                                | benchmark                     | 8     |            |           |            |          |                |   | 1078 | 1205 |
| Jans09 Jans09 [264]                    | Solving Lot-Sizing Problems on Parallel Identical Machines Using Symmetry-Breaking Constraints  |                                |                               | 0     |            |           |            |          |                |   | 1079 | No   |
| OhrimenkoSC09<br>OhrimenkoSC09 [395]   | Propagation via lazy clause generation  |                                | benchmark                     | 8     |            |           |            |          |                |   | 1080 | 1273 |
| RuggieroBBMA09<br>RuggieroBBMA09 [432] | Reducing the Abstraction and Optimality Gaps in the Allocation and Scheduling for Variable Voltage/Frequency MPSoC Platforms            |                                | instance generator, real-life | 0     |            |           |            |          |                |   | 1081 | 1286 |
| WuBB09 WuBB09 [536]                    | Scheduling with uncertain durations: Modeling beta-robust scheduling with constraints   |                                |                               | 0     |            |           |            |          |                |   | 1082 | No   |
| abs-0907-0939<br>abs-0907-0939 [410]   | The Soft Cumulative Constraint  |                                | real-world                    | 0     |            |           |            |          |                |   | 1083 | 1329 |
| GarridoOS08<br>GarridoOS08 [186]       | Planning and scheduling in an e-learning environment. A constraint-programming-based approach   |                                | real-world                    | 0     |            |           |            |          |                |   | 1084 | 1206 |
| KovacsB08<br>KovacsB08 [291]           | A global constraint for total weighted completion time for cumulative resources   |                                | benchmark                     | 0     |            |           |            |          |                |   | 1085 | 1234 |
| LiessM08<br>LiessM08 [320]             | A constraint programming approach for the resource-constrained project scheduling problem   |                                | benchmark                     | 0     |            |           |            |          |                |   | 1086 | 1244 |
| MalikMB08<br>MalikMB08 [353]           | Optimal Basic Block Instruction Scheduling for Multiple-Issue Processors Using Constraint Programming                                   |                                | benchmark                     | 0     |            |           |            |          |                |   | 1087 | 1253 |
| MercierH08<br>MercierH08 [361]         | Edge Finding for Cumulative Scheduling  |                                |                               | 0     |            |           |            |          |                |   | 1088 | No   |
| Beck07 Beck07 [53]                     | Solution-Guided Multi-Point Constructive Search for Job Shop Scheduling   |                                | benchmark                     | 0     |            |           |            |          |                |   | 1089 | 1167 |
| BeckW07 BeckW07 [62]                   | Proactive Algorithms for Job Shop Scheduling with Probabilistic Durations   |                                | benchmark                     | 0     |            |           |            |          |                |   | 1090 | 1172 |
| Hooker07<br>Hooker07 [253]             | Planning and Scheduling by Logic-Based Benders Decomposition  |                                |                               | 0     |            |           |            |          |                |   | 1091 | No   |
| Rodriguez07<br>Rodriguez07 [430]       | A constraint programming model for real-time train scheduling at junctions  |                                | real-life                     | 2     |            |           |            |          |                |   | 1092 | 1284 |
| Simonis07<br>Simonis07 [461]           | Models for Global Constraint Applications   | CHIP                           |                               | 0     | n          |           | n          |          |                | cumulative<br>diffn<br>cycle<br>inverse<br>cumulative | 1093 | 1298 |
| Hooker06<br>Hooker06 [252]             | An Integrated Method for Planning and Scheduling to Minimize Tardiness  | OPL<br>Cplex<br>Ilog Scheduler | random instance               | 2     | n          |           | n          | [251]    | CuSP           |   | 1094 | 1224 |
| KhayatLR06<br>KhayatLR06 [280]         | Integrated production and material handling scheduling using mathematical programming and constraint programming                        |                                | real-life, bench-<br>mark     | 1     |            |           |            |          |                |   | 1095 | 1231 |
| SadykovW06<br>SadykovW06 [435]         | Integer Programming and Constraint Programming in Solving a Multimachine Assignment Scheduling Problem with Deadlines and Release Dates |                                | generated in-<br>stance       | 1     |            |           |            |          |                |   | 1096 | 1288 |
| SureshMOK06<br>SureshMOK06 [468]       | Divisible load scheduling in distributed system with buffer constraints: genetic algorithm and linear programming approach              |                                |                               | 0     |            |           |            |          |                |   | 1097 | 1301 |
| Hooker05<br>Hooker05 [250]             | A Hybrid Method for the Planning and Scheduling   | OPL<br>Cplex<br>Ilog Scheduler | random instance               | 0     | n          |           | n          | [249]    | CuSP           | cumulative  | 1098 | 1223 |

Table 7: Manually Defined ARTICLE Properties

| Key                                  | Title (Local Copy)   | CP System     | Bench                         | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints | a    | b    |
|--------------------------------------|--|---------------|-------------------------------|-------|------------|-----------|------------|----------|----------------|-------------|------|------|
| VilimBC05<br>VilimBC05 [517]         | Extension of $O(n \log n)$ Filtering Algorithms for the Unary Resource Constraint to Optional Activities                     |               | benchmark, real-life          | 0     | n          |           | n          | [516]    | JSSP           | disjunctive | 1099 | 1311 |
| ZeballosH05<br>ZeballosH05 [546]     | A Constraint Programming Approach to FMS Scheduling. Consideration of Storage and Transportation Resources                   |               |                               | 0     |            |           |            |          |                |             | 1100 | 1323 |
| PoderBS04<br>PoderBS04 [412]         | Computing a lower approximation of the compulsory part of a task with varying duration and varying resource consumption      |               |                               | 0     |            |           |            |          |                |             | 1101 | 1277 |
| BeckR03 BeckR03 [59]                 | A Hybrid Approach to Scheduling with Earliness and Tardiness Costs   |               | benchmark                     | 0     |            |           |            |          |                |             | 1102 | 1171 |
| HookerO03<br>HookerO03 [256]         | Logic-based Benders decomposition  |               |                               | 0     |            |           |            |          |                |             | 1103 | No   |
| KuchcinskiW03<br>KuchcinskiW03 [302] | Global approach to assignment and scheduling of complex behaviors based on HCDG and constraint programming                   |               | benchmark                     | 0     |            |           |            |          |                |             | 1104 | 1238 |
| Laborie03<br>Laborie03 [305]         | Algorithms for propagating resource constraints in AI planning and scheduling: Existing approaches and new results           |               | benchmark                     | 0     |            |           |            |          |                |             | 1105 | 1239 |
| Tsang03 Tsang03 [501]                | Constraint Based Scheduling: Applying Constraint Programming to Scheduling Problems  |               | real-life                     | 0     |            |           |            |          |                |             | 1106 | 1310 |
| HarjunkskiG02<br>HarjunkskiG02 [226] | Decomposition techniques for multistage scheduling problems using mixed-integer and constraint programming methods           |               |                               | 0     |            |           |            |          |                |             | 1107 | No   |
| LorigeonBB02<br>LorigeonBB02 [341]   | A dynamic programming algorithm for scheduling jobs in a two-machine open shop with an availability constraint               |               |                               | 0     |            |           |            |          |                |             | 1108 | 1251 |
| RodriguezDG02<br>RodriguezDG02 [429] | Railway infrastructure saturation using constraint programming approach  |               |                               | 0     |            |           |            |          |                |             | 1109 | 1285 |
| Timpe02 Timpe02 [486]                | Solving planning and scheduling problems with combined integer and constraint programming                                    |               |                               | 0     |            |           |            |          |                |             | 1110 | 1305 |
| JainG01 JainG01 [263]                | Algorithms for Hybrid MILP/CP Models for a Class of Optimization Problems  |               |                               | 0     |            |           |            |          |                |             | 1111 | No   |
| MartinPY01<br>MartinPY01 [355]       | Cane Railway Scheduling via Constraint Logic Programming: Labelling Order and Constraints in a Real-Life Application         |               | real-life                     | 0     |            |           |            |          |                |             | 1112 | 1254 |
| Mason01 Mason01 [356]                | Elastic Constraint Branching, the Wedelin/Carmen Lagrangian Heuristic and Integer Programming for Personnel Scheduling       |               |                               | 0     |            |           |            |          |                |             | 1113 | 1255 |
| ArtiguesR00<br>ArtiguesR00 [23]      | A polynomial activity insertion algorithm in a multi-resource schedule with cumulative constraints and multiple modes        |               |                               | 0     |            |           |            |          |                |             | 1114 | 1157 |
| BaptisteP00<br>BaptisteP00 [38]      | Constraint Propagation and Decomposition Techniques for Highly Disjunctive and Highly Cumulative Project Scheduling Problems | CLAIRE        | benchmark                     | 0     | n          |           | n          |          | RCCSP          | cumulative  | 1115 | 1163 |
| BeckF00 BeckF00 [57]                 | Dynamic problem structure analysis as a basis for constraint-directed scheduling heuristics                                  |               | real-world, benchmark         | 0     |            |           |            |          |                |             | 1116 | 1168 |
| HeipckeCCS00<br>HeipckeCCS00 [242]   | Scheduling under Labour Resource Constraints   | COME SchedEns | benchmark, instance generator | 0     | dead       |           | n          | -        |                |             | 1117 | 1222 |
| KorbaaYG00<br>KorbaaYG00 [288]       | Solving Transient Scheduling Problems with Constraint Programming  |               |                               | 0     |            |           |            |          |                |             | 1118 | 1233 |
| LopezAKYG00<br>LopezAKYG00 [340]     | Discussion on: 'Solving Transient Scheduling Problems with Constraint Programming' by O. Korbaa, P. Yim, and J.-C. Gentina   |               |                               | 0     |            |           |            |          |                |             | 1119 | 1250 |

Table 7: Manually Defined ARTICLE Properties

| Key  | Title (Local Copy)  | CP System             | Bench                                     | Links | Data Avail | Sol Avail | Code Avail | Based On | Classification | Constraints                         | a    | b    |
|--|---|-----------------------|---|-------|------------|-----------|------------|----------|----------------|-------------------------------------|------|------|
| SakkoutW00<br>SakkoutW00 [436]               | Probe Backtrack Search for Minimal Perturbation in Dynamic Scheduling   | Cplex<br>ECLiPSe      | benchmark, real-world                     | 0     | n          |           | n          | -        | KRFP           |                                     | 1120 | 1289 |
| SchildW00<br>SchildW00 [438]                 | Scheduling of Time-Triggered Real-Time Systems  | OZ                    |   | 0     | n          |           | n          | -        |                | disjunctive                         | 1121 | 1291 |
| SourdN00<br>SourdN00 [463]                   | Multiple-Machine Lower Bounds for Shop-Scheduling Problems  |                       | real-life, bench-<br>mark                 | 1     |            |           |            |          |                |                                     | 1122 | 1299 |
| TorresL00<br>TorresL00 [489]                 | On Not-First/Not-Last conditions in disjunctive scheduling  |                       |   | 0     |            |           |            |          |                |                                     | 1123 | No   |
| BensanaLV99<br>BensanaLV99 [79]              | Earth Observation Satellite Management  | Ilog Solver           | benchmark                                 | 0     | ?          |           | -          | -        |                |                                     | 1124 | 1180 |
| BruckerDMNP99<br>BruckerDMNP99 [109]         | Resource-constrained project scheduling: Notation, classification, models, and methods  |                       |   | 0     |            |           |            |          |                |                                     | 1125 | No   |
| BeckF98 BeckF98 [56]                         | A Generic Framework for Constraint-Directed Search and Scheduling   |                       | real-world, benchmark                     | 0     |            |           |            |          |                |                                     | 1126 | 1169 |
| BelhadjiI98<br>BelhadjiI98 [72]              | Temporal Constraint Satisfaction Techniques in Job Shop Scheduling Problem Solving  | -                     | real-life                                 | 0     | n          |           | n          | -        | TCSP<br>JSSP   |                                     | 1127 | 1177 |
| NuijtenP98<br>NuijtenP98 [393]               | Constraint-Based Job Shop Scheduling with \sc Ilog Scheduler  |                       | real-life                                 | 0     |            |           |            |          |                |                                     | 1128 | 1272 |
| PapaB98 PapaB98 [404]                        | Resource Constraints for Preemptive Job-shop Scheduling   | Ilog Solver<br>Claire | benchmark                                 | 0     | dead       |           | -          | -        | PJSSP          | disjunctive<br>flow                 | 1129 | 1276 |
| Darby-DowmanLMZ97<br>Darby-DowmanLMZ97 [138] | Constraint Logic Programming and Integer Programming Approaches and Their Collaboration in Solving an Assignment Scheduling Problem | Cplex<br>ECLiPSe      | real-life, real-<br>world, bench-<br>mark | 0     | n          |           | n          | -        | MGAP           |                                     | 1130 | 1194 |
| FalaschiGMP97<br>FalaschiGMP97 [169]         | Constraint Logic Programming with Dynamic Scheduling: A Semantics Based on Closure Operators  |                       |   | 0     |            |           |            |          |                |                                     | 1131 | 1200 |
| KolischS97<br>KolischS97 [286]               | PSPLIB - A project scheduling problem library   |                       |   | 0     |            |           |            |          |                |                                     | 1132 | No   |
| LammaMM97<br>LammaMM97 [312]                 | A distributed constraint-based scheduler  |                       | real-life                                 | 0     |            |           |            |          |                |                                     | 1133 | 1242 |
| Zhou97 Zhou97 [554]                          | A Permutation-Based Approach for Solving the Job-Shop Problem   | -                     | benchmark                                 | 0     | n          |           | n          | [553]    | JSSP           | sort<br>alldifferent<br>permutation | 1134 | 1327 |
| Wallace96<br>Wallace96 [522]                 | Practical Applications of Constraint Programming  | -                     |   | 0     | -          |           | -          | -        | Survey         | -                                   | 1135 | 1313 |
| BeldiceanuC94<br>BeldiceanuC94 [67]          | Introducing Global Constraints in CHIP  |                       | real-world, real-<br>life, benchmark      | 0     |            |           |            |          |                |                                     | 1136 | 1175 |
| CarlierP94<br>CarlierP94 [119]               | Adjustment of heads and tails for the job-shop problem  |                       |   | 0     |            |           |            |          |                |                                     | 1137 | No   |
| Pape94 Pape94 [402]                          | Implementation of resource constraints in ILOG SCHEDULE: a library for the development of constraint-based scheduling systems       |                       |   | 0     |            |           |            |          |                |                                     | 1138 | No   |
| AggounB93<br>AggounB93 [7]                   | Extending CHIP in order to solve complex scheduling and placement problems  |                       | real-world                                | 0     |            |           |            |          |                |                                     | 1139 | 1154 |
| Taillard93<br>Taillard93 [471]               | Benchmarks for basic scheduling problems  |                       |   | 0     |            |           |            |          |                |                                     | 1140 | No   |
| Tay92 Tay92 [477]                            | COPS: A Constraint Programming Approach to Resource-Limited Project Scheduling  |                       |   | 0     |            |           |            |          |                |                                     | 1141 | No   |
| ApplegateC91<br>ApplegateC91 [16]            | A Computational Study of the Job-Shop Scheduling Problem  |                       |   | 0     |            |           |            |          |                |                                     | 1142 | No   |
| DechterMP91<br>DechterMP91 [145]             | Temporal constraint networks  |                       |   | 0     |            |           |            |          |                |                                     | 1143 | No   |
| CarlierP90<br>CarlierP90 [118]               | A practical use of Jackson's preemptive schedule for solving the job shop problem   |                       |   | 0     |            |           |            |          |                |                                     | 1144 | No   |

Table 7: Manually Defined ARTICLE Properties

| Key                                 | Title (Local Copy)   | CP<br>System | Bench     | Links | Data<br>Avail | Sol<br>Avail | Code<br>Avail | Based<br>On | Classification | Constraints | a    | b    |
|-------------------------------------|--|--------------|-----------|-------|---------------|--------------|---------------|-------------|----------------|-------------|------|------|
| DincbasSH90<br>DincbasSH90 [156]    | Solving Large Combinatorial Problems in Logic<br>Programming                 |              | real-life | 0     |               |              |               |             |                |             | 1145 | 1195 |
| CarlierP89<br>CarlierP89 [117]      | An Algorithm for Solving the Job-Shop Problem                                |              |           | 0     |               |              |               |             |                |             | 1146 | No   |
| AdamsBZ88<br>AdamsBZ88 [6]          | The Shifting Bottleneck Procedure for Job Shop<br>Scheduling                 |              |           | 0     |               |              |               |             |                |             | 1147 | No   |
| BlazewiczLK83<br>BlazewiczLK83 [86] | Scheduling subject to resource constraints:<br>classification and complexity |              |           | 0     |               |              |               |             |                |             | 1148 | 1182 |
| Benders62<br>Benders62 [74]         | Partitioning procedures for solving<br>mixed-variables programming problems  |              |           | 0     |               |              |               |             |                |             | 1149 | No   |



## 4 Authors

Table 8: Co-Authors of Articles/Papers

| Author                | Nr Works | Nr Cites | Entries   |
|-----------------------|----------|----------|---|
| J. Christopher Beck   | 46       | 623      | LuoB22 [346], ZhangBB22 [549], TangB20 [472], TranPZLDB18 [495], TranVNB17 [497], TranVNB17a [498], CohenHB17 [131], BoothNB16 [101], KuB16 [301], TranAB16 [492], TranWDRFOVB16 [499], LuoVLBM16 [345], TranDRFWOVB16 [494], BajestaniB15 [33], KoschB14 [289], TerekhovTDB14 [480], LouieVNB14 [342], HeinzSB13 [239], HeinzKB13 [236], BajestaniB13 [32], TranTDB13 [496], HeinzB12 [235], Terekhov-DOB12 [479], TranB12 [493], KovacsB11 [292], BeckFW11 [55], HeckmanB11 [234], BajestaniB11 [31], WuBB09 [536], BidotVLB09 [82], WatsonB08 [528], KovacsB08 [291], BeckW07 [62], Beck07 [53], KovacsB07 [290], Beck06 [52], CarchraeBF05 [116], WuBB05 [535], BeckW05 [61], BeckW04 [60], BeckR03 [59], BeckPS03 [58], BeckF00 [57], Beck99 [51], BeckF98 [56], BeckDF97 [54] |
| Michela Milano        | 24       | 172      | BorghesiBLMB18 [102], BonfiettiZLM16 [100], BridiBLMB16 [107], BridiLBBM16 [108], LombardiBM15 [331], BartoliniBBLM14 [49], BonfiettiLM14 [98], BonfiettiLBM14 [96], BonfiettiLM13 [97], LombardiM13 [338], LombardiM12 [337], BonfiettiLBM12 [95], LombardiM12a [336], BonfiettiM12 [99], BonfiettiLBM11 [94], LombardiBMB11 [332], BeniniLMR11 [78], LombardiM10 [335], LombardiM10a [334], LombardiM09 [333], RuggieroBBMA09 [432], BeniniBGM06 [77], LammaMM97 [312], BrusoniCLMMT96 [110]  |
| Andreas Schutt        | 24       | 314      | YangSS19 [537], KreterSSZ18 [300], GoldwaserS18 [207], MusliuSS18 [376], KreterSS17 [299], YoungFS17 [539], GoldwaserS17 [206], SchuttS16 [447], SzerediS16 [470], KreterSS15 [298], EvenSH15 [166], EvenSH15a [167], ThiruvadyWGS14 [484], SchuttFS13 [441], SchuttFS13a [440], GuSS13 [218], SchuttFSW13 [445], ChuGNSW13 [126], SchuttCSW12 [439], SchuttFSW11 [444], SchuttW10 [448], abs-1009-0347 [443], SchuttFSW09 [442], SchuttWS05 [449]  |
| Peter J. Stuckey      | 23       | 789      | YangSS19 [537], DemirovicS18 [150], KreterSSZ18 [300], MusliuSS18 [376], KreterSS17 [299], SchuttS16 [447], BlomPS16 [88], KreterSS15 [298], BurtLPS15 [111], BlomBPS14 [87], LipovetzkyBPS14 [326], SchuttFS13 [441], SchuttFS13a [440], GuSS13 [218], SchuttFSW13 [445], SchuttCSW12 [439], GuSW12 [219], SchuttFSW11 [444], BandaSC11 [144], abs-1009-0347 [443], SchuttFSW09 [442], OhrmenkoSC09 [395], NethercoteSBBDT07 [382]   |
| Michele Lombardi      | 22       | 135      | BorghesiBLMB18 [102], CauwelaertLS18 [122], BonfiettiZLM16 [100], BridiBLMB16 [107], BridiLBBM16 [108], LombardiBM15 [331], BartoliniBLM14 [49], BonfiettiLM14 [98], BonfiettiLBM14 [96], MusfiettiLM13 [97], LombardiM13 [338], LombardiM12 [337], BonfiettiLBM12 [95], LombardiM12a [336], BonfiettiLBM11 [94], LombardiBMB11 [332], BeniniLMR11 [78], LombardiM10 [335], LombardiM10a [334], LombardiM09 [333], HoeveGSL07 [506]   |
| Emmanuel Hebrard      | 17       | 71       | JuvinHHL23 [268], HebrardALLCMR22 [230], AntuoriHHEN21 [15], ArtiguesHQT21 [22], GodetLHS20 [203], AntuoriHHEN20 [14], Hebrard-HJMPV16 [231], SimoninAHL15 [459], SialaAH15 [457], GrimesH15 [212], BessiereHMQW14 [81], SimoninAHL12 [458], BillautHL12 [83], GrimesH11 [211], GrimesH10 [210], GrimesHM09 [213], HebrardTW05 [232]  |
| John N. Hooker        | 14       | 895      | Hooker19 [255], HookerH18 [257], Hooker17 [254], HechingH16 [233], CireCH13 [128], CobanH10 [130], Hooker07 [253], Hooker06 [252], Hooker05 [250], Hooker05a [251], Hooker04 [249], HookerO03 [256], HookerY02 [258], Hooker00 [248]  |
| Nicolas Beldiceanu    | 13       | 274      | Madi-WambaLOBM17 [348], Madi-WambaB16 [347], LetortCB15 [318], LetortCB13 [317], LetortBC12 [316], ClercqPBJ11 [129], BeldiceanuCDP11 [69], BeldiceanuCP08 [70], PoderB08 [411], BeldiceanuP07 [71], PoderBS04 [412], BeldiceanuC02 [68], AggounB93 [7]   |
| Pierre Lopez          | 13       | 75       | JuvinHHL23 [268], JuvinHL23 [269], HebrardALLCMR22 [230], Polo-MejiaALB20 [414], NattafAL17 [380], SimoninAHL15 [459], NattafAL15 [379], SimoninAHL12 [458], BillautHL12 [83], LahimerLH11 [311], TrojetHL11 [500], LopezAKYG00 [340], TorresL00 [489]  |
| Christian Artigues    | 12       | 142      | PovedaAA23 [417], PohlAK22 [413], HebrardALLCMR22 [230], ArtiguesHQT21 [22], Polo-MejiaALB20 [414], NattafAL17 [380], SimoninAHL15 [459], NattafAL15 [379], SialaAH15 [457], SimoninAHL12 [458], ArtiguesBF04 [21], ArtiguesR00 [23]  |
| Pierre Schaus         | 12       | 79       | CauwelaertDS20 [123], CappartTSR18 [115], CauwelaertLS18 [122], CappartS17 [114], CauwelaertDMS16 [121], DejemeppeCS15 [147], GayHLS15 [187], GayHS15 [188], GayHS15a [189], HoundjiSWD14 [259], GaySS14 [190], SchausHMCMD11 [437]   |
| Roman Barták          | 11       | 88       | SvancaraB22 [469], JelinekB16 [265], BartakV15 [48], Bartak14 [44], BartakS11 [46], BartakCS10 [45], BartakSR10 [47], VilimBC05 [517], VilimBC04 [516], Bartak02 [43], Bartak02a [42]   |
| Philippe Laborie      | 11       | 510      | LunardiBLRV20 [343], LaborieRSV18 [308], Laborie18a [307], MelgarejoLS15 [8], VilimLS15 [518], Laborie09 [306], BidotVLB09 [82], BaptisteLPN06 [36], GodardLN05 [201], Laborie03 [305], FocacciLN00 [175]   |
| Petr Vilím            | 11       | 313      | LaborieRSV18 [308], VilimLS15 [518], Vilim11 [515], Vilim09 [513], Vilim09a [514], VilimBC05 [517], Vilim05 [512], VilimBC04 [516], Vilim04 [511], Vilim03 [510], Vilim02 [509]   |
| Luca Benini           | 10       | 87       | BorghesiBLMB18 [102], BridiBLMB16 [107], BridiLBBM16 [108], BonfiettiLBM14 [96], BonfiettiLBM12 [95], BonfiettiLBM11 [94], LombardiBMB11 [332], BeniniLMR11 [78], RuggieroBBMA09 [432], BeniniBGM06 [77]  |
| Alessio Bonfietti     | 10       | 17       | BonfiettiZLM16 [100], Bonfietti16 [93], LombardiBM15 [331], BonfiettiLM14 [98], BonfiettiLBM14 [96], BonfiettiLM13 [97], BonfiettiLBM12 [95], BonfiettiM12 [99], BonfiettiLBM11 [94], LombardiBMB11 [332]   |
| Pascal Van Hentenryck | 10       | 164      | FontaineMH16 [176], EvenSH15 [166], EvenSH15a [167], SchausHMCMD11 [437], MonetteDH09 [366], DoomsH08 [157], HentenryckM08 [244], MercierH08 [361], HentenryckM04 [243], DincbasSH90 [156]  |
| Philippe Baptiste     | 9        | 400      | BaptisteB18 [35], Baptiste09 [34], BaptisteLPN06 [36], ArtiouchineB05 [24], BaptistePN01 [39], BaptisteP00 [38], PapaB98 [404], BaptisteP97 [37], PapeB97 [403]   |
| Nysret Musliu         | 9        | 14       | LacknerMMWW23 [310], WinterMMW22 [531], LacknerMMWW21 [309], GeibingerKKMMW21 [192], GeibingerMM21 [195], GeibingerMM19 [194], abs-1911-04766 [193], MusliuSS18 [376], KletzanderM17 [284]  |

Table 8: Co-Authors of Articles/Papers

| Author                   | Nr Works | Nr Cites | Entries  |
|--------------------------|----------|----------|--|
| Claude-Guy Quimper       | 9        | 25       | BoudreaultSLQ22 [104], OuelletQ22 [398], Mercier-AubinGQ20 [362], FahimiOQ18 [168], KameugneFGOQ18 [272], OuelletQ18 [397], GigrasQ16 [200], BessiereHMqw14 [81], OuelletQ13 [396] |
| Tony T. Tran             | 9        | 108      | TranPZLDB18 [495], TranVNB17 [497], TranVNB17a [498], TranAB16 [492], TranWDRFOVB16 [499], TranDRFWOVB16 [494], TerekhovTDB14 [480], TranTDB13 [496], TranB12 [493]                |
| Mats Carlsson            | 8        | 80       | WessenCS20 [529], MossigeGSMC17 [369], LetortCB15 [318], LetortCB13 [317], LetortBC12 [316], BeldiceanuCDP11 [69], BeldiceanuCP08 [70], BeldiceanuC02 [68]                         |
| Claude Le Pape           | 8        | 534      | BaptisteLPN06 [36], BaptistePN01 [39], BaptisteP00 [38], PapaB98 [404], NuijtenP98 [393], BaptisteP97 [37], PapeB97 [403], Pape94 [402]  |
| Helmut Simonis           | 8        | 133      | ArmstrongGOS22 [19], ArmstrongGOS21 [18], GrimesIOS14 [214], IfrimOS12 [261], Simonis07 [461], SimonisC95 [462], Simonis95 [460], DincbasSH90 [156]                                |
| Mark Wallace             | 8        | 243      | WallaceY20 [523], He0GLW18 [229], ThiruvadyWGS14 [484], SchuttFSW09 [442], SakkoutW00 [436], RodosekW98 [428], Wallace96 [522], Wallace94 [521]                                    |
| Thibaut Feydy            | 7        | 170      | YoungFS17 [539], SchuttFS13 [441], SchuttFS13a [440], SchuttFSW13 [445], SchuttFSW11 [444], abs-1009-0347 [443], SchuttFSW09 [442]   |
| Zdenek Hanzálek          | 7        | 27       | Mehdizadeh-Somarin23 [357], abs-2305-19888 [241], HeinzNVH22 [240], VlkHT21 [520], BenediktMH20 [75], BenediktSMVH18 [76], KelbelH11 [278]   |
| András Kovács            | 7        | 21       | KovacsB11 [292], KovacsK11 [294], KovacsB08 [291], KovacsB07 [290], KovacsV06 [296], KovacsEKV05 [293], KovacsV04 [295]  |
| Gabriela P. Henning      | 7        | 153      | NovaraNH16 [387], NovasH14 [391], NovasH12 [390], NovasH10 [389], ZeballosQH10 [547], ZeballosH05 [546], QuirogaZH05 [425]   |
| Stefan Heinz             | 6        | 67       | HeinzSB13 [239], HeinzKB13 [236], HeinzSSW12 [237], HeinzB12 [235], HeinzS11 [238], BertholdHLMS10 [80]  |
| Wim Nuijten              | 6        | 375      | BaptisteLPN06 [36], GodardLN05 [201], BaptistePN01 [39], SourdN00 [463], FocacciLN00 [175], NuijtenP98 [393]   |
| Emmanuel Poder           | 6        | 27       | BeldiceanuCDP11 [69], abs-0907-0939 [410], BeldiceanuCP08 [70], PoderB08 [411], BeldiceanuP07 [71], PoderBS04 [412]  |
| Louis-Martin Rousseau    | 6        | 103      | CappartTSR18 [115], DoulabiRP16 [159], PesantRR15 [409], DoulabiRP14 [158], ChapadosJR11 [125], HachemiGR11 [221]  |
| Cyrille Dejemeppe        | 5        | 8        | CauwelaertDS20 [123], CauwelaertDMS16 [121], Dejemeppe16 [146], DejemeppeCS15 [147], DejemeppeD14 [148]  |
| Yves Deville             | 5        | 19       | HoundjiSWD14 [259], DejemeppeD14 [148], SchausHMCMD11 [437], MonetteDH09 [366], MonetteDD07 [365]  |
| Mark G. Wallace          | 5        | 123      | SchuttFSW13 [445], SchuttCSW12 [439], GuSW12 [219], SchuttFSW11 [444], abs-1009-0347 [443]   |
| Diarmuid Grimes          | 5        | 51       | GrimesH15 [212], GrimesIOS14 [214], GrimesH11 [211], GrimesH10 [210], GrimesHM09 [213]   |
| Roger Kameugne           | 5        | 14       | KameugneFND23 [273], KameugneFGOQ18 [272], Kameugne15 [271], KameugneFSN14 [275], KameugneFSN11 [274]  |
| Juan M. Novas            | 5        | 148      | Novas19 [388], NovaraNH16 [387], NovasH14 [391], NovasH12 [390], NovasH10 [389]  |
| Marek Vlk                | 5        | 14       | abs-2305-19888 [241], HeinzNVH22 [240], VlkHT21 [520], BenediktSMVH18 [76], BartakV15 [48]   |
| Armin Wolf               | 5        | 36       | GeitzGSSW22 [196], SchuttW10 [448], WolfS05 [533], SchuttWS05 [449], Wolf03 [532]  |
| André A. Ciré            | 4        | 50       | CireCH13 [128], LopesCSM10 [339], MouraSCL08 [371], MouraSCL08a [370]  |
| Andrea Bartolini         | 4        | 40       | BorghesiBLMB18 [102], BridiBLMB16 [107], BridiLBBM16 [108], BartoliniBBLM14 [49]   |
| Steven Gay               | 4        | 42       | GayHLS15 [187], GayHS15 [188], GayHS15a [189], GaySS14 [190]   |
| Tobias Geibinger         | 4        | 6        | GeibingerKKMMW21 [192], GeibingerMM21 [195], GeibingerMM19 [194], abs-1911-04766 [193]   |
| Arnaud Malapert          | 4        | 16       | NattafM20 [381], MalapertN19 [351], Malapert11 [350], GrimesHM09 [213]   |
| Laurent Michel           | 4        | 39       | TardivoDFRP23 [474], SchausHMCMD11 [437], HentenryckM08 [244], HentenryckM04 [243]   |
| Florian Mischek          | 4        | 6        | GeibingerKKMMW21 [192], GeibingerMM21 [195], GeibingerMM19 [194], abs-1911-04766 [193]   |
| Jean-Noël Monette        | 4        | 15       | CauwelaertDMS16 [121], SchausHMCMD11 [437], MonetteDH09 [366], MonetteDD07 [365]   |
| Margaux Nattaf           | 4        | 20       | NattafM20 [381], MalapertN19 [351], NattafAL17 [380], NattafAL15 [379]   |
| Goldie Nejat             | 4        | 50       | TranVNB17 [497], TranVNB17a [498], BoothNB16 [101], LouieVNB14 [342]   |
| Barry O'Sullivan         | 4        | 13       | ArmstrongGOS22 [19], ArmstrongGOS21 [18], GrimesIOS14 [214], IfrimOS12 [261]   |
| Yanick Ouellet           | 4        | 10       | OuelletQ22 [398], FahimiOQ18 [168], KameugneFGOQ18 [272], OuelletQ18 [397]   |
| Gilles Pesant            | 4        | 60       | AalianPG23 [1], DoulabiRP16 [159], PesantRR15 [409], DoulabiRP14 [158]   |
| Thierry Petit            | 4        | 20       | DerrienP14 [152], DerrienPZ14 [153], ClercqPBJ11 [129], abs-0907-0939 [410]  |
| Cédric Pralet            | 4        | 10       | SquillaciPR23 [464], Pralet17 [418], HebrardHJMPV16 [231], PraletLJ15 [419]  |
| Adrian R. Pearce         | 4        | 35       | BlomPS16 [88], BurtLPS15 [111], BlomBPS14 [87], LipovetzkyBPS14 [326]  |
| Dhananjay R. Thiruvady   | 4        | 32       | abs-2402-00459 [383], abs-2211-14492 [466], ThiruvadyWGS14 [484], ThiruvadyBME09 [483]   |
| Christine Solnon         | 4        | 20       | GroleazNS20 [216], GroleazNS20a [215], SacramentoSP20 [433], MelgarejoLS15 [8]   |
| József Váncza            | 4        | 9        | KovacsV06 [296], KovacsEKV05 [293], KovacsV04 [295], VanczaM01 [507]   |
| Toby Walsh               | 4        | 2        | GelainPRVW17 [197], BessiereHMqw14 [81], ChuGNSW13 [126], HebrardTW05 [232]  |
| Felix Winter             | 4        | 0        | LacknerMMWW23 [310], WinterMMW22 [531], LacknerMMWW21 [309], GeibingerKKMMW21 [192]  |
| Francisco Yuraszeck      | 4        | 25       | YuraszeckMCCR23 [543], YuraszeckMC23 [541], YuraszeckMPV22 [542], MejiaY20 [358]   |
| Max Åstrand              | 4        | 27       | AstrandOF21 [26], Åstrand21 [25], ÅstrandJZ20 [28], ÅstrandJZ18 [27]   |
| Miguel A. Salido         | 3        | 45       | BartakS11 [46], BartakSR10 [47], AbrilSB05 [4]   |
| Bruno A. Prata           | 3        | 1        | PrataAN23 [420], AbreuNP23 [143], AbreuPNF23 [3]   |
| Maliheh Aramon Bajestani | 3        | 31       | BajestaniB15 [33], BajestaniB13 [32], BajestaniB11 [31]  |
| Séverine Betmbe Fetgo    | 3        | 1        | KameugneFND23 [273], FetgoD22 [174], KameugneFGOQ18 [272]  |
| Miquel Bofill            | 3        | 11       | BofillCSV17 [90], BofillGSV15 [92], BofillEGPSV14 [91]   |

Table 8: Co-Authors of Articles/Papers

| Author                   | Nr<br>Works | Nr<br>Cites | Entries   |
|--------------------------|-------------|-------------|---|
| Thomas Bridi             | 3           | 29          | BridiBLMB16 [107], BridiLBBM16 [108], BartoliniBBLM14 [49]        |
| Cid C. de Souza          | 3           | 21          | MouraSCL08 [371], MouraSCL08a [370], HeipckeCCS00 [242]           |
| Quentin Cappart          | 3           | 8           | PopovicCGNC22 [415], CappartTSR18 [115], CappartS17 [114]         |
| Jacques Carlier          | 3           | 779         | CarlierP94 [119], CarlierP90 [118], CarlierP89 [117]              |
| Ondrej Cepek             | 3           | 36          | BartakCS10 [45], VilimBC05 [517], VilimBC04 [516]                 |
| Erich Christian Teppan   | 3           | 11          | Teppan22 [478], ColT22 [134], ColT19 [133]                        |
| Geoffrey Chu             | 3           | 42          | ChuGNSW13 [126], SchuttCSW12 [439], BandaSC11 [144]               |
| Giacomo Da Col           | 3           | 11          | ColT22 [134], abs-2102-08778 [132], ColT19 [133]                  |
| Sophie Demassey          | 3           | 36          | HermenierDL11 [245], BeldiceanuCDP11 [69], Demassey03 [149]       |
| Alban Derrien            | 3           | 17          | Derrien15 [151], DerrienP14 [152], DerrienPZ14 [153]              |
| Ignacio E. Grossmann     | 3           | 463         | MaraveliasG04 [354], HarjunkoskiG02 [226], JainG01 [263]          |
| Jeremy Frank             | 3           | 7           | TranWDRFOVB16 [499], TranDRFWOVB16 [494], FrankK05 [178]          |
| Douglas G. Down          | 3           | 20          | TranPZLDB18 [495], TerekhovTDB14 [480], TranTDB13 [496]           |
| Michele Garraffa         | 3           | 1           | AlfieriGPS23 [11], ArmstrongGOS22 [19], ArmstrongGOS21 [18]       |
| Martin Gebser            | 3           | 0           | TasselGS23 [475], abs-2306-05747 [476], KovacsTKSG21 [297]        |
| Jean-Claude Gentina      | 3           | 8           | KorbaaYG00 [288], LopezAKYG00 [340], KorbaaYG99 [287]             |
| Hanyu Gu                 | 3           | 34          | ThiruvadyWGS14 [484], GuSS13 [218], GuSW12 [219]                  |
| Renaud Hartert           | 3           | 35          | GayHLS15 [187], GayHS15 [188], GayHS15a [189]                     |
| Brahim Hnich             | 3           | 68          | GokgurHO18 [205], OzturkTHO13 [400], RossiTHP07 [431]             |
| Marie-José Huguet        | 3           | 12          | AntuoriHHEN21 [15], AntuoriHHEN20 [14], HebrardHJMPV16 [231]      |
| Andrew J. Davenport      | 3           | 13          | Davenport10 [139], DavenportKRSH07 [140], BeckDF97 [54]           |
| Willem Jan van Hoeve     | 3           | 12          | HookerH18 [257], HoeveGSL07 [506], GomesHS06 [209]                |
| Mikael Johansson         | 3           | 27          | Astrand0F21 [26], AstrandJZ20 [28], AstrandJZ18 [27]              |
| Narendra Jussien         | 3           | 13          | ClercqPB11 [129], ElkhyariGJ02 [162], ElkhyariGJ02a [163]         |
| Tamás Kis                | 3           | 6           | KovacsK11 [294], KeriK07 [279], KovacsEKV05 [293]                 |
| Ouajdi Korbaa            | 3           | 8           | KorbaaYG00 [288], LopezAKYG00 [340], KorbaaYG99 [287]             |
| Stefan Kreter            | 3           | 47          | KreterSSZ18 [300], KreterSS17 [299], KreterSS15 [298]             |
| Krzysztof Kuchcinski     | 3           | 24          | WolinskiKG04 [534], KuchcinskiW03 [302], GruianK98 [217]          |
| Arnaud Letort            | 3           | 23          | LetortCB15 [318], LetortCB13 [317], LetortBC12 [316]              |
| Tony Minoru Tamura Lopes | 3           | 47          | LopesCSM10 [339], MouraSCL08 [371], MouraSCL08a [370]             |
| Kenneth N. Brown         | 3           | 43          | MurphyMB15 [374], WuBB09 [536], WuBB05 [535]                      |
| Christina N. Burt        | 3           | 15          | BurtLPS15 [111], BlomBPS14 [87], LipovetzkyBPS14 [326]            |
| Hiroki Nishikawa         | 3           | 3           | NishikawaSTT19 [386], NishikawaSTT18 [384], NishikawaSTT18a [385] |
| Erwin Pesch              | 3           | 1045        | MullerMKP22 [372], BlazewiczEP19 [85], BruckerDMNP99 [109]        |
| Eric Pinson              | 3           | 779         | CarlierP94 [119], CarlierP90 [118], CarlierP89 [117]              |
| Levi Ribeiro de Abreu    | 3           | 11          | AbreuNP23 [143], AbreuN22 [142], AbreuAPNM21 [141]                |
| Mark S. Fox              | 3           | 27          | BeckF00 [57], BeckF98 [56], BeckDF97 [54]                         |
| Jens Schulz              | 3           | 40          | HeinzSB13 [239], HeinzS11 [238], BertholdHLSM10 [80]              |
| Marcelo Seido Nagano     | 3           | 11          | AbreuNP23 [143], AbreuN22 [142], AbreuAPNM21 [141]                |
| Paul Shaw                | 3           | 809         | LaborieRSV18 [308], VilimLS15 [518], Shaw98 [452]                 |
| Kana Shimada             | 3           | 3           | NishikawaSTT19 [386], NishikawaSTT18 [384], NishikawaSTT18a [385] |
| Mohamed Siala            | 3           | 8           | Siala15 [455], SialaAH15 [457], Siala15a [456]                    |
| Gilles Simonin           | 3           | 8           | GodetLHS20 [203], SimoninAHL15 [459], SimoninAHL12 [458]          |
| Tiago Stegun Vaquero     | 3           | 29          | TranVNB17 [497], TranVNB17a [498], LouieVNB14 [342]               |
| Josep Suy                | 3           | 11          | BofillCSV17 [90], BofillGSV15 [92], BofillEGPSV14 [91]            |
| Ittetsu Taniguchi        | 3           | 3           | NishikawaSTT19 [386], NishikawaSTT18 [384], NishikawaSTT18a [385] |
| Pierre Tassel            | 3           | 0           | TasselGS23 [475], abs-2306-05747 [476], KovacsTKSG21 [297]        |
| Daria Terekhov           | 3           | 20          | TerekhovTDB14 [480], TranTDB13 [496], TerekhovDOB12 [479]         |
| Hiroyuki Tomiyama        | 3           | 3           | NishikawaSTT19 [386], NishikawaSTT18 [384], NishikawaSTT18a [385] |
| Seyda Topaloglu Yildiz   | 3           | 20          | IsikYA23 [262], YunusogluY22 [540], KucukY19 [304]                |
| Sascha Van Cauwelaert    | 3           | 8           | CauwelaertLS18 [122], CauwelaertDMS16 [121], DejemeppeCS15 [147]  |
| Gérard Verfaillie        | 3           | 119         | HebrardHJMPV16 [231], VerfaillieL01 [508], BensanaLV99 [79]       |
| Arnaldo Vieira Moura     | 3           | 47          | LopesCSM10 [339], MouraSCL08 [371], MouraSCL08a [370]             |
| Mateu Villaret           | 3           | 11          | BofillCSV17 [90], BofillGSV15 [92], BofillEGPSV14 [91]            |
| Daniel Walkiewicz        | 3           | 0           | LacknerMMWW23 [310], WinterMMW22 [531], LacknerMMWW21 [309]       |

Table 8: Co-Authors of Articles/Papers

| Author                        | Nr<br>Works | Nr<br>Cites | Entries  |
|-------------------------------|-------------|-------------|--|
| Nic Wilson                    | 3           | 27          | BeckW07 [62], BeckW05 [61], BeckW04 [60]                 |
| Pascal Yim                    | 3           | 8           | KorbaaYG00 [288], LopezAKYG00 [340], KorbaaYG99 [287]    |
| Alessandro Zanmarini          | 3           | 25          | AstrandJZ20 [28], AstrandJZ18 [27], BonfiettiZLM16 [100] |
| Luis Zeballos                 | 3           | 35          | ZeballosQH10 [547], ZeballosH05 [546], QuirogaZH05 [425] |
| Laurence A. Wolsey            | 2           | 50          | HoundjiSWD14 [259], SadykovW06 [435]                     |
| Valentin Antuori              | 2           | 3           | AntuoriHHEN21 [15], AntuoriHHEN20 [14]                   |
| Eddie Armstrong               | 2           | 1           | ArmstrongGOS22 [19], ArmstrongGOS21 [18]                 |
| Amelia Badica                 | 2           | 4           | BadicaBI20 [29], BadicaBIL19 [30]                        |
| Costin Badica                 | 2           | 4           | BadicaBI20 [29], BadicaBIL19 [30]                        |
| Pierre Baptiste               | 2           | 13          | BoucherBVBL97 [103], BaptisteLV92 [40]                   |
| Nicolas Barnier               | 2           | 0           | WangB23 [525], WangB20 [524]                             |
| Ondrej Benedikt               | 2           | 3           | BenediktMH20 [75], BenediktSMVH18 [76]                   |
| Davide Bertozzi               | 2           | 27          | RuggieroBBMA09 [432], BeniniBGM06 [77]                   |
| Jean-Charles Billaut          | 2           | 23          | BillautHL12 [83], LorigeonBB02 [341]                     |
| Jacek Blazewicz               | 2           | 985         | BlazewiczEP19 [85], BlazewiczLK83 [86]                   |
| Andrea Borghesi               | 2           | 23          | BorghesiBLMB18 [102], BartoliniBBLM14 [49]               |
| Dario Canut-de-Bon            | 2           | 1           | YuraszeckMCCR23 [543], YuraszeckMC23 [541]               |
| Amedeo Cesta                  | 2           | 13          | OddiPCC03 [394], CestaOS98 [124]                         |
| Elvin Coban                   | 2           | 12          | CireCH13 [128], CobanH10 [130]                           |
| Yves Colombani                | 2           | 9           | HeipckeCCS00 [242], Colombani96 [135]                    |
| Joseph D. Scott               | 2           | 13          | KameugneFSN14 [275], KameugneFSN11 [274]                 |
| Rina Dechter                  | 2           | 889         | FrostD98 [182], DechterMP91 [145]                        |
| Mauro Dell’Amico              | 2           | 2           | MontemanniD23 [368], MontemanniD23a [367]                |
| Minh Do                       | 2           | 3           | TranWDRFOVB16 [499], TranDRFWOVB16 [494]                 |
| Hani El Sakkout               | 2           | 82          | KamarainenS02 [270], SakkoutW00 [436]                    |
| Abdallah Elkhyari             | 2           | 10          | ElkhyariGJ02 [162], ElkhyariGJ02a [163]                  |
| Tamer Eren                    | 2           | 1           | GurPAE23 [220], GurEA19 [560]                            |
| Siham Essodaigui              | 2           | 3           | AntuoriHHEN21 [15], AntuoriHHEN20 [14]                   |
| Caroline Even                 | 2           | 3           | EvenSH15 [166], EvenSH15a [167]                          |
| Minhaz F. Zibran              | 2           | 43          | ZibranR11 [557], ZibranR11a [558]                        |
| Azadeh Farsi                  | 2           | 25          | FarsiTM22 [172], MokhtarzadehTNF20 [364]                 |
| Dominique Feillet             | 2           | 19          | Acuna-AgostMFG09 [5], ArtiguesBF04 [21]                  |
| Maurizio Gabbrielli           | 2           | 10          | LiuCGM17 [328], FalaschiGMP97 [169]                      |
| Michel Gamache                | 2           | 0           | AalianPG23 [1], CampeauG22 [113]                         |
| Marc Garcia                   | 2           | 10          | BofillGSV15 [92], BofillEGPSV14 [91]                     |
| Antonio Garrido               | 2           | 27          | GarridoAO09 [185], GarridoOS08 [186]                     |
| Eleanor Gilbert Rieffel       | 2           | 3           | TranWDRFOVB16 [499], TranDRFWOVB16 [494]                 |
| Vincent Gingras               | 2           | 1           | KameugneFGOQ18 [272], GingrasQ16 [200]                   |
| Arthur Godet                  | 2           | 1           | Godet21a [202], GodetLHS20 [203]                         |
| Adrian Goldwaser              | 2           | 8           | GoldwaserS18 [207], GoldwaserS17 [206]                   |
| Arnaud Gotlieb                | 2           | 9           | MossigeGSMC17 [369], AlesioNBG14 [154]                   |
| Lucas Groleaz                 | 2           | 4           | GroleazNS20 [216], GroleazNS20a [215]                    |
| Christelle Gu  ret            | 2           | 10          | ElkhyariGJ02 [162], ElkhyariGJ02a [163]                  |
| Andy Ham                      | 2           | 0           | HamPK21 [223], Ham18 [222]                               |
| Vil  m Heinz                  | 2           | 5           | abs-2305-19888 [241], HeinzNVH22 [240]                   |
| Seyed Hossein Hashemi Doulabi | 2           | 59          | DoulabiRP16 [159], DoulabiRP14 [158]                     |
| Laurent Houssin               | 2           | 0           | JuvinHHL23 [268], JuvinHL23 [269]                        |
| Georgiana Ifrim               | 2           | 12          | GrimesIOS14 [214], IfrimOS12 [261]                       |
| Mirjana Ivanovic              | 2           | 4           | BadicaBI20 [29], BadicaBIL19 [30]                        |
| Carla Juvin                   | 2           | 0           | JuvinHHL23 [268], JuvinHL23 [269]                        |
| Chanchal K. Roy               | 2           | 43          | ZibranR11 [557], ZibranR11a [558]                        |
| Lucas Kletzander              | 2           | 1           | GeibingerKKMMW21 [192], KletzanderM17 [284]              |
| Rainer Kolisch                | 2           | 844         | PohlAK22 [413], KolischS97 [286]                         |
| Jan Kristof Behrens           | 2           | 12          | BehrensLM19 [65], abs-1901-07914 [66]                    |
| Wen-Yang Ku                   | 2           | 128         | KuB16 [301], HeinzKB13 [236]                             |

Table 8: Co-Authors of Articles/Papers

| Author                   | Nr<br>Works | Nr<br>Cites | Entries   |
|--------------------------|-------------|-------------|---|
| Michelle L. Blom         | 2           | 35          | BlomPS16 [88], BlomBPS14 [87]                       |
| Marie-Louise Lackner     | 2           | 0           | LacknerMMWW23 [310], LacknerMMWW21 [309]            |
| Arnaud Lallouet          | 2           | 0           | PerezGSL23 [407], abs-2312-13682 [408]              |
| Evelina Lamma            | 2           | 12          | LammaMM97 [312], BrusoniCLMMT96 [110]               |
| Ralph Lange              | 2           | 12          | BehrensLM19 [65], abs-1901-07914 [66]               |
| Bruno Legeard            | 2           | 13          | BoucherBVBL97 [103], BaptisteLV92 [40]              |
| Michel Lemaitre          | 2           | 110         | VerfaillieL01 [508], BensanaLV99 [79]               |
| BoonPing Lim             | 2           | 6           | LimHTB16 [322], LimBTBB15 [323]                     |
| Kamol Limtanyakul        | 2           | 6           | LimtanyakulS12 [325], Limtanyakul07 [324]           |
| Nir Lipovetzky           | 2           | 0           | BurtLPS15 [111], LipovetzkyBPS14 [326]              |
| James Little             | 2           | 30          | KrogtLPHJ07 [505], Darby-DowmanLMZ97 [138]          |
| Shixin Liu               | 2           | 0           | LiFJZLL22 [319], ZhangJZL22 [548]                   |
| Xavier Lorca             | 2           | 29          | GodetLHS20 [203], HermenierDL11 [245]               |
| Abid M. Malik            | 2           | 15          | Malik08 [352], MalikMB08 [353]                      |
| Gilles Madi-Wamba        | 2           | 1           | Madi-WambaLOBM17 [348], Madi-WambaB16 [347]         |
| Adrien Maillard          | 2           | 9           | HebrardALLCMR22 [230], HebrardHJMPV16 [231]         |
| Masoumeh Mansouri        | 2           | 12          | BehrensLM19 [65], abs-1901-07914 [66]               |
| Gonzalo Mejía            | 2           | 25          | YuraszekMC23 [541], MejiaY20 [358]                  |
| Paola Mello              | 2           | 12          | LammaMM97 [312], BrusoniCLMMT96 [110]               |
| Philippe Michelon        | 2           | 25          | Acuna-AgostMFG09 [5], LiessM08 [320]                |
| Mahdi Mokhtarzadeh       | 2           | 25          | FarsiTM22 [172], MokhtarzadehTNF20 [364]            |
| Roberto Montemanni       | 2           | 2           | MontemanniD23 [368], MontemanniD23a [367]           |
| Christoph Mrkvicka       | 2           | 0           | LacknerMMWW23 [310], LacknerMMWW21 [309]            |
| István Módos             | 2           | 3           | BenediktMH20 [75], BenediktSMVH18 [76]              |
| Samba Ndojh Ndiaye       | 2           | 4           | GroleazNS20 [216], GroleazNS20a [215]               |
| Youcheu Ngo-Kateu        | 2           | 13          | KameugneFSN14 [275], KameugneFSN11 [274]            |
| Alain Nguyen             | 2           | 3           | AntuoriHHEN21 [15], AntuoriHHEN20 [14]              |
| Su Nguyen                | 2           | 0           | abs-2402-00459 [383], abs-2211-14492 [466]          |
| Antonín Novák            | 2           | 5           | abs-2305-19888 [241], HeinzNVH22 [240]              |
| Bryan O’Gorman           | 2           | 3           | TranWDRFOVB16 [499], TranDRFWOVB16 [494]            |
| Angelo Oddi              | 2           | 13          | OddiPCC03 [394], CestaOS98 [124]                    |
| Eva Onaindia             | 2           | 27          | GarridoAO09 [185], GarridoOS08 [186]                |
| Carla P. Gomes           | 2           | 0           | HoeveGSL07 [506], GomesHS06 [209]                   |
| Laure Pauline Fotso      | 2           | 13          | KameugneFSN14 [275], KameugneFSN11 [274]            |
| Guillaume Perez          | 2           | 0           | PerezGSL23 [407], abs-2312-13682 [408]              |
| Enrico Pontelli          | 2           | 0           | TardivoDFMP23 [474], VillaverdeP04 [519]            |
| Oscar Quiroga            | 2           | 35          | ZeballosQH10 [547], QuirogaZH05 [425]               |
| Günther R. Raidl         | 2           | 14          | FrohnerTR19 [181], RendlPHPR12 [426]                |
| Levi R. Abreu            | 2           | 0           | PrataAN23 [420], AbreuPNF23 [3]                     |
| Philippe Refalo          | 2           | 46          | GarganiR07 [184], BeckR03 [59]                      |
| Francesca Rossi          | 2           | 29          | GelainPRVW17 [197], BartakSR10 [47]                 |
| Martino Ruggiero         | 2           | 27          | BeniniLMR11 [78], RuggieroBBMA09 [432]              |
| Marcelo S. Nagano        | 2           | 0           | PrataAN23 [420], AbreuPNF23 [3]                     |
| Ruslan Sadykov           | 2           | 56          | SadykovW06 [435], Sadykov04 [434]                   |
| Konstantin Schekotihin   | 2           | 0           | TasselGS23 [475], abs-2306-05747 [476]              |
| Gunnar Schrader          | 2           | 12          | WolfS05 [533], SchuttWS05 [449]                     |
| Christian Schulte        | 2           | 5           | WessenCS20 [529], FrimodigS19 [180]                 |
| Bart Selman              | 2           | 0           | HoeveGSL07 [506], GomesHS06 [209]                   |
| Wijnand Suijlen          | 2           | 0           | PerezGSL23 [407], abs-2312-13682 [408]              |
| Yuan Sun                 | 2           | 0           | abs-2402-00459 [383], abs-2211-14492 [466]          |
| Andreas T. Ernst         | 2           | 13          | abs-2211-14492 [466], ThiruvadyBME09 [483]          |
| Reza Tavakkoli-Moghaddam | 2           | 25          | Mehdizadeh-Somarin23 [357], MokhtarzadehTNF20 [364] |
| Clémentin Tayou Djamégni | 2           | 0           | KameugneFND23 [273], FetgoD22 [174]                 |
| Erich Teppan             | 2           | 3           | abs-2102-08778 [132], FriedrichFMRSS14 [179]        |
| Alexander Tesch          | 2           | 9           | Tesch18 [482], Tesch16 [481]                        |

Table 8: Co-Authors of Articles/Papers

| Author                    | Nr<br>Works | Nr<br>Cites | Entries   |
|---------------------------|-------------|-------------|---|
| Sylvie Thiébaux           | 2           | 6           | LimHTB16 [322], LimBTBB15 [323]                     |
| Behdin Vahedi Nouri       | 2           | 25          | Mehdizadeh-Somarin23 [357], MokhtarzadehTNF20 [364] |
| Christophe Varnier        | 2           | 13          | BoucherBVBL97 [103], BaptisteLV92 [40]              |
| Davide Venturelli         | 2           | 3           | TranWDRFOVB16 [499], TranDRFWOVB16 [494]            |
| Ruixin Wang               | 2           | 0           | WangB23 [525], WangB20 [524]                        |
| Zhihui Wang               | 2           | 3           | TranWDRFOVB16 [499], TranDRFWOVB16 [494]            |
| Jean-Paul Watson          | 2           | 57          | BeckFW11 [55], WatsonB08 [528]                      |
| Christine Wei Wu          | 2           | 42          | WuBB09 [536], WuBB05 [535]                          |
| Christophe Wolinski       | 2           | 19          | WolinskiKG04 [534], KuchcinskiW03 [302]             |
| Farouk Yalaoui            | 2           | 3           | OujanaAYB22 [399], ArbaouiY18 [17]                  |
| Neil Yorke-Smith          | 2           | 5           | EfthymiouY23 [161], WallaceY20 [523]                |
| Ziyan Zhao                | 2           | 0           | LiFJZLL22 [319], ZhangJZL22 [548]                   |
| Jiayang Zhou              | 2           | 24          | Zhou97 [554], Zhou96 [553]                          |
| Willem-Jan van Hoeve      | 2           | 50          | GilesH16 [199], GoelSHFS15 [204]                    |
| Menkes van den Briel      | 2           | 6           | LimHTB16 [322], LimBTBB15 [323]                     |
| Peter van Beek            | 2           | 16          | BegB13 [64], MalikMB08 [353]                        |
| Jans, Raf                 | 1           | 59          | Jans09 [264]  |
| Florian A. Herzog         | 1           | 2           | KoehlerBFFHPSSS21 [285]                             |
| J. A. Hoogeveen           | 1           | 2           | AkkerDH07 [503]                                     |
| M. A. Hakim Newton        | 1           | 0           | RiahiNS018 [427]                                    |
| Viktoria A. Hauder        | 1           | 0           | abs-1902-09244 [228]                                |
| Amr A. Kandil             | 1           | 24          | TangLWSK18 [473]                                    |
| Antonio A. Márquez        | 1           | 7           | ValleMGTO3 [502]                                    |
| Kennedy A. G. Araújo      | 1           | 0           | AbreuAPNM21 [141]                                   |
| Steve A. Chien            | 1           | 0           | HebrardALLCMR22 [230]                               |
| Sheila A. McIlraith       | 1           | 0           | LuoVLBM16 [345]                                     |
| Mehmet A. Begen           | 1           | 0           | NaderiBZ22 [377]                                    |
| Younes Aalian             | 1           | 0           | AalianPG23 [1]                                      |
| Hanaa Abohashima          | 1           | 1           | AbohashimaEG21 [2]                                  |
| Montserrat Abril          | 1           | 0           | AbrilSB05 [4]                                       |
| Rodrigo Acuna-Agost       | 1           | 3           | Acuna-AgostMFG09 [5]                                |
| Joseph Adams              | 1           | 1054        | AdamsBZ88 [6]                                       |
| W. Adelman                | 1           | 17          | EscobetPQPRA19 [165]                                |
| Michael Affenzeller       | 1           | 0           | abs-1902-09244 [228]                                |
| Abderrahmane Aggoun       | 1           | 187         | AggounB93 [7]                                       |
| Penélope Aguiar-Melgarejo | 1           | 14          | MelgarejoLS15 [8]                                   |
| Sanjay Ahire              | 1           | 0           | KanetAG04 [276]                                     |
| Aftab Ahmed Shaikh        | 1           | 0           | ShaikhK23 [451]                                     |
| Uwe Aickelin              | 1           | 0           | abs-2211-14492 [466]                                |
| Ali Akbar Sadat Asl       | 1           | 55          | ZarandiASC20 [545]                                  |
| Mohsen Akbarpour Shirazi  | 1           | 28          | ZarandiKS16 [544]                                   |
| Arianna Alfieri           | 1           | 0           | AlfieriGPS23 [11]                                   |
| S. Ali Torabi             | 1           | 0           | FarsiTM22 [172]                                     |
| Samira Alizdeh            | 1           | 1           | AlizdehS20 [12]                                     |
| Hassane Alla              | 1           | 0           | LopezAKYG00 [340]                                   |
| Lionel Amodeo             | 1           | 1           | OujanaAYB22 [399]                                   |
| Schutt, Andreas           | 1           | 3           | SchuttFSW15 [446]                                   |
| Alexandru Andrei          | 1           | 9           | RuggieroBBMA09 [432]                                |
| Ola Angelsmark            | 1           | 1           | AngelsmarkJ00 [13]                                  |
| Richard Anthony Valenzano | 1           | 0           | LuoVLBM16 [345]                                     |
| M. Anton Ertl             | 1           | 14          | ErtlK91 [164]                                       |
| Zbigniew Antoni Banaszak  | 1           | 0           | BocewiczBB09 [89]                                   |
| David Applegate           | 1           | 536         | ApplegateC91 [16]                                   |
| Marlene Arangú            | 1           | 5           | GarridoAO09 [185]                                   |
| Arthur Araújo             | 1           | 72          | TranAB16 [492]                                      |

Table 8: Co-Authors of Articles/Papers

| Author                    | Nr<br>Works | Nr<br>Cites | Entries                 |
|---------------------------|-------------|-------------|-------------------------|
| Taha Arbaoui              | 1           | 2           | ArbaouiY18 [17]         |
| Martin Aronsson           | 1           | 0           | AronssonBK09 [20]       |
| M. Arslan Ornek           | 1           | 31          | OzturkTHO13 [400]       |
| Konstantin Artiouchine    | 1           | 3           | ArtiouchineB05 [24]     |
| Arezo Atighehchian        | 1           | 0           | YounespourAKE19 [538]   |
| Abdullah Ayub Khan        | 1           | 0           | ShaikhK23 [451]         |
| Emrah B. Edis             | 1           | 5           | EdisO11 [160]           |
| Amr B. Eltawil            | 1           | 1           | AbohashimaEG21 [2]      |
| Maya B. Gokhale           | 1           | 0           | WolinskiKG04 [534]      |
| David B. H. Tay           | 1           | 0           | Tay92 [477]             |
| Özalp Babaoglu            | 1           | 1           | GalleguillosKSB19 [183] |
| Irena Bach                | 1           | 0           | BocewiczBB09 [89]       |
| Astrid Bachelu            | 1           | 0           | BoucherBVBL97 [103]     |
| Scott Backhaus            | 1           | 4           | LimBTBB15 [323]         |
| Naderi, Bahman            | 1           | 2           | NaderiRR23 [378]        |
| Egon Balas                | 1           | 1054        | AdamsBZ88 [6]           |
| Hari Balasubramanian      | 1           | 9           | ShinBBHO18 [454]        |
| Viet Bang Nguyen          | 1           | 0           | LauLN08 [313]           |
| Federico Barber           | 1           | 0           | AbrilSB05 [4]           |
| Ada Barlatt               | 1           | 1           | BarlattCG08 [41]        |
| Mohammadreza Barzegaran   | 1           | 0           | BarzegaranZP20 [50]     |
| Virginie Basini           | 1           | 8           | Polo-MejiaALB20 [414]   |
| Ralph Becket              | 1           | 344         | NethercoteSBBDT07 [382] |
| Andreas Beham             | 1           | 0           | abs-1902-09244 [228]    |
| N Beldiceanu              | 1           | 167         | BeldiceanuC94 [67]      |
| Said Belhadji             | 1           | 3           | BelhadjiI98 [72]        |
| Sana Belmokhtar           | 1           | 16          | ArtiguesBF04 [21]       |
| Fatima Benbouzid-Si Tayeb | 1           | 0           | TouatBT22 [490]         |
| Till Bender               | 1           | 1           | BenderWS21 [73]         |
| Belaid Benhamou           | 1           | 0           | TouatBT22 [490]         |
| Hachemi Bennaceur         | 1           | 8           | KhemmoudjPB06 [281]     |
| E. Bensana                | 1           | 99          | BensanaLV99 [79]        |
| Russell Bent              | 1           | 4           | LimBTBB15 [323]         |
| Timo Berthold             | 1           | 28          | BertholdHLMS10 [80]     |
| Christian Bessiere        | 1           | 1           | BessiereHMQW14 [81]     |
| Julien Bidot              | 1           | 58          | BidotVLB09 [82]         |
| Arthur Bit-Monnot         | 1           | 0           | Bit-Monnot23 [84]       |
| Christian Blum            | 1           | 13          | ThiruvadyBME09 [483]    |
| Grzegorz Bocewicz         | 1           | 0           | BocewiczBB09 [89]       |
| Markus Bohlin             | 1           | 0           | AronssonBK09 [20]       |
| Nicolas Bonifas           | 1           | 3           | BaptisteB18 [35]        |
| Eric Boucher              | 1           | 0           | BoucherBVBL97 [103]     |
| Raphaël Boudreault        | 1           | 0           | BoudreaultSLQ22 [104]   |
| Jean-Louis Bouquard       | 1           | 22          | LorigeonBB02 [341]      |
| Eric Bourreau             | 1           | 4           | BourreauGGLT22 [105]    |
| Sebastian Brand           | 1           | 344         | NethercoteSBBDT07 [382] |
| Silvia Breitingner        | 1           | 0           | BreitingnerL95 [106]    |
| Kristen Brent Venable     | 1           | 1           | GelainPRVW17 [197]      |
| Dirk Briskorn             | 1           | 577         | HartmannB10 [227]       |
| D. Brodart                | 1           | 1           | OujanaAYB22 [399]       |
| Peter Brucker             | 1           | 990         | BruckerDMNP99 [109]     |
| Yuriy Brun                | 1           | 9           | ShinBBHO18 [454]        |
| Vittorio Brusoni          | 1           | 1           | BrusoniCLMMT96 [110]    |
| Josef Bürgler             | 1           | 2           | KoehlerBFFHPSSS21 [285] |
| Cristina C. B. Cavalcante | 1           | 5           | HeipckeCCS00 [242]      |

Table 8: Co-Authors of Articles/Papers

| Author                      | Nr<br>Works | Nr<br>Cites | Entries                 |
|-----------------------------|-------------|-------------|-------------------------|
| Lionel C. Briand            | 1           | 3           | AlesioNBG14 [154]       |
| Eugene C. Freuder           | 1           | 0           | CarchraeBF05 [116]      |
| Kevin C. Furman             | 1           | 48          | GoelSHFS15 [204]        |
| Joseph C. Pemberton         | 1           | 26          | PembertonG98 [406]      |
| Hendrik C. R. Lock          | 1           | 0           | BreitingerL95 [106]     |
| Eray Cakici                 | 1           | 50          | HamC16 [224]            |
| Louis-Pierre Campeau        | 1           | 0           | CampeauG22 [113]        |
| Tom Carchrae                | 1           | 0           | CarchraeBF05 [116]      |
| Cid Carvalho de Souza       | 1           | 31          | LopesCSM10 [339]        |
| Yves Caseau                 | 1           | 0           | Caseau97 [120]          |
| Oscar Castillo              | 1           | 55          | ZarandiASC20 [545]      |
| Yao-Ting Chang              | 1           | 2           | HoYCLLC18 [247]         |
| Nicolas Chapados            | 1           | 5           | ChapadosJR11 [125]      |
| Mohammad Cherkaoui          | 1           | 0           | FallahiAC20 [170]       |
| Han-Mo Chiu                 | 1           | 2           | HoYCLLC18 [247]         |
| Yeonjun Choi                | 1           | 0           | KimCMLLP23 [282]        |
| Yingyi Chu                  | 1           | 13          | ChuX05 [127]            |
| Sue-Min Chu                 | 1           | 2           | HoYCLLC18 [247]         |
| Hoong Chuin Lau             | 1           | 0           | LauLN08 [313]           |
| Michael Codish              | 1           | 127         | OhrimenkoSC09 [395]     |
| Carleton Coffrin            | 1           | 14          | SchausHMCMD11 [437]     |
| Eldan Cohen                 | 1           | 1           | CohenHB17 [131]         |
| Jordi Coll Caballero        | 1           | 0           | Caballero23 [112]       |
| Jordi Coll                  | 1           | 1           | BofillCSV17 [90]        |
| Luca Console                | 1           | 1           | BrusoniCLMMT96 [110]    |
| E Contejean                 | 1           | 167         | BeldiceanuC94 [67]      |
| William Cook                | 1           | 536         | ApplegateC91 [16]       |
| Trijntje Cornelissens       | 1           | 17          | SimonisC95 [462]        |
| Gabriella Cortellessa       | 1           | 8           | OddiPCC03 [394]         |
| Nicolás Cuneo               | 1           | 0           | YuraszeckMCCR23 [543]   |
| Alain Côté                  | 1           | 0           | PopovicCGNC22 [415]     |
| Kenneth D. Young            | 1           | 6           | YoungFS17 [539]         |
| Laurent D. Michel           | 1           | 3           | FontaineMH16 [176]      |
| Steven D. Prestwich         | 1           | 6           | RossiTHP07 [431]        |
| Michael D. Moffitt          | 1           | 0           | MoffittPP05 [363]       |
| Emilie Danna                | 1           | 21          | DannaP03 [137]          |
| Ken Darby-Dowman            | 1           | 28          | Darby-DowmanLMZ97 [138] |
| Vivian De Smedt             | 1           | 7           | GaySS14 [190]           |
| Alexis De Clercq            | 1           | 3           | ClercqPBJ11 [129]       |
| Carmelo Del Valle           | 1           | 7           | ValleMGT03 [502]        |
| Xavier Delorme              | 1           | 0           | RodriguezDG02 [429]     |
| Alain Demeure               | 1           | 0           | JourdanFRD94 [266]      |
| Emir Demirovic              | 1           | 4           | DemirovicS18 [150]      |
| Roberto Di Cosmo            | 1           | 0           | LiuCGM17 [328]          |
| Guido Diepen                | 1           | 2           | AkkerDH07 [503]         |
| Bistra Dilkina              | 1           | 2           | DilkinaDH05 [155]       |
| Mehmet Dincbas              | 1           | 86          | DincbasSH90 [156]       |
| Grégoire Dooks              | 1           | 1           | DooksH08 [157]          |
| Agostino Dovier             | 1           | 0           | TardivoDFMP23 [474]     |
| Andreas Drexler             | 1           | 990         | BruckerDMNP99 [109]     |
| Yuquan Du                   | 1           | 27          | QinDCS20 [423]          |
| Lei Duan                    | 1           | 2           | DilkinaDH05 [155]       |
| Alexandre Duarte de Almeida | 1           | 0           | Lemos21 [315]           |
| Lemos                       |             |             |                         |
| Didier Dubois               | 1           | 13          | FortinZDF05 [177]       |



Table 8: Co-Authors of Articles/Papers

| Author                   | Nr<br>Works | Nr<br>Cites | Entries                   |
|--------------------------|-------------|-------------|---------------------------|
| Pierre Dupont            | 1           | 0           | MonetteDD07 [365]         |
| David Duvivier           | 1           | 36          | WangMD15 [526]            |
| Kyle E. C. Booth         | 1           | 21          | BoothNB16 [101]           |
| Marco E. Lübbecke        | 1           | 28          | BertholdHLMS10 [80]       |
| Andrew E. Santosa        | 1           | 0           | ZhuS02 [556]              |
| Martha E. Pollack        | 1           | 0           | MoffittPP05 [363]         |
| Nikolaos Efthymiou       | 1           | 0           | EfthymiouY23 [161]        |
| Gokhan Egilmez           | 1           | 43          | GedikKEK18 [191]          |
| Péter Egri               | 1           | 2           | KovacsEKV05 [293]         |
| Nizar El Hachemi         | 1           | 32          | HachemiGR11 [221]         |
| Ghada El Khayat          | 1           | 84          | KhayatLR06 [280]          |
| Abdellah El Fallahi      | 1           | 0           | FallahiAC20 [170]         |
| Sebastian Engell         | 1           | 3           | KlankeBYE21 [283]         |
| Eyüp Ensar Isik          | 1           | 0           | IsikYA23 [262]            |
| Teresa Escobet           | 1           | 17          | EscobetPQPRA19 [165]      |
| Joan Espasa              | 1           | 3           | BofillEGPSV14 [91]        |
| Stephen F. Smith         | 1           | 5           | CestaOS98 [124]           |
| Michael F. Gorman        | 1           | 0           | KanetAG04 [276]           |
| Jacques F. Benders       | 1           | 2583        | Benders62 [74]            |
| Mohd Fadlee A. Rasid     | 1           | 0           | AkramNHRS23 [9]           |
| François Fages           | 1           | 0           | JourdanFRD94 [266]        |
| Hamed Fahimi             | 1           | 2           | FahimiOQ18 [168]          |
| Moreno Falaschi          | 1           | 10          | FalaschiGMP97 [169]       |
| Huali Fan                | 1           | 18          | FanXG21 [171]             |
| Hélène Fargier           | 1           | 13          | FortinZDF05 [177]         |
| Soroush Fatemi-Anaraki   | 1           | 0           | Fatemi-AnarakiMFN22 [173] |
| Filippo Focacci          | 1           | 0           | FocacciLN00 [175]         |
| Daniel Fontaine          | 1           | 3           | FontaineMH16 [176]        |
| Urs Fontana              | 1           | 2           | KoehlerBFFHPSSS21 [285]   |
| Andrea Formisano         | 1           | 0           | TardivoDFMP23 [474]       |
| Jérôme Fortin            | 1           | 13          | FortinZDF05 [177]         |
| Mehdi Foumani            | 1           | 0           | Fatemi-AnarakiMFN22 [173] |
| Gerhard Friedrich        | 1           | 3           | FriedrichFMRSS14 [179]    |
| Sara Frimodig            | 1           | 3           | FrimodigS19 [180]         |
| Nikolaus Frohner         | 1           | 0           | FrohnerTR19 [181]         |
| Daniel Frost             | 1           | 10          | FrostD98 [182]            |
| Melanie Frühstück        | 1           | 3           | FriedrichFMRSS14 [179]    |
| Jun Fu                   | 1           | 0           | LiFJZLL22 [319]           |
| Etienne Fux              | 1           | 2           | KoehlerBFFHPSSS21 [285]   |
| Ernesto G. Birgin        | 1           | 30          | LunardiBLRV20 [343]       |
| Mohamed Gaha             | 1           | 0           | PopovicCGNC22 [415]       |
| Flavius Galiber III      | 1           | 26          | PembertonG98 [406]        |
| Cristian Galleguillos    | 1           | 1           | GalleguillosKSB19 [183]   |
| Xavier Gandibleux        | 1           | 0           | RodriguezDG02 [429]       |
| Graeme Gange             | 1           | 6           | He0GLW18 [229]            |
| Thierry Garaix           | 1           | 4           | BourreauGGLT22 [105]      |
| Maria Garcia de la Banda | 1           | 24          | BandaSC11 [144]           |
| Antoine Gargani          | 1           | 17          | GarganiR07 [184]          |
| Serge Gaspers            | 1           | 0           | ChuGNSW13 [126]           |
| Jonathan Gaudreault      | 1           | 2           | Mercier-AubinGQ20 [362]   |
| Ridvan Gedik             | 1           | 43          | GedikKEK18 [191]          |
| Marc Geitz               | 1           | 0           | GeitzGSSW22 [196]         |
| Mirco Gelain             | 1           | 1           | GelainPRVW17 [197]        |
| Michel Gendreau          | 1           | 32          | HachemiGR11 [221]         |
| Wing-Yue Geoffrey Louie  | 1           | 16          | LouieVNB14 [342]          |

Table 8: Co-Authors of Articles/Papers

| Author                         | Nr<br>Works | Nr<br>Cites | Entries                 |
|--------------------------------|-------------|-------------|-------------------------|
| Marcus Gerhard Müller          | 1           | 17          | MullerMKP22 [372]       |
| Patrick Gerhards               | 1           | 0           | HubnerGSV21 [260]       |
| Ulrich Geske                   | 1           | 2           | Geske05 [198]           |
| Katherine Giles                | 1           | 2           | GilesH16 [199]          |
| Gaël Glorian                   | 1           | 0           | PerezGSL23 [407]        |
| Gael Glorian                   | 1           | 0           | abs-2312-13682 [408]    |
| Daniel Godard                  | 1           | 0           | GodardLN05 [201]        |
| Vikas Goel                     | 1           | 48          | GoelSHFS15 [204]        |
| Mark Goh                       | 1           | 18          | FanXG21 [171]           |
| Hans-Joachim Goltz             | 1           | 7           | Goltz95 [208]           |
| Matthieu Gondran               | 1           | 4           | BourreauGGTL22 [105]    |
| Cristian Grozea                | 1           | 0           | GeitzGSSW22 [196]       |
| Flavius Gruian                 | 1           | 5           | GruianK98 [217]         |
| Alessio Guerri                 | 1           | 18          | BeniniBGM06 [77]        |
| Serigne Gueye                  | 1           | 3           | Acuna-AgostMFG09 [5]    |
| Ying Guo                       | 1           | 0           | ZhouGL15 [555]          |
| Şeyda Gür                      | 1           | 0           | GurEA19 [560]           |
| Burak Gökgür                   | 1           | 31          | GokgurHO18 [205]        |
| Seyda Gür                      | 1           | 1           | GurPAE23 [220]          |
| Fehmi H'Mida                   | 1           | 11          | TrojetHL11 [500]        |
| Rolf H. Möhring                | 1           | 28          | BertholdHMLS10 [80]     |
| John H. Drake                  | 1           | 41          | PourDERB18 [416]        |
| M. H. Fazel Zarandi            | 1           | 28          | ZarandiKS16 [544]       |
| Klaus H. Ecker                 | 1           | 38          | BlazewiczEP19 [85]      |
| Emile H. L. Aarts              | 1           | 0           | NuijtenA94 [392]        |
| A. H. G. Rinnooy Kan           | 1           | 947         | BlazewiczLK83 [86]      |
| Claire Hanen                   | 1           | 1           | HanenKP21 [225]         |
| Jiang Hang Chen                | 1           | 27          | QinDCS20 [423]          |
| Sue Hanhilammi                 | 1           | 2           | KrogtLPHJ07 [505]       |
| Mohamed Haouari                | 1           | 3           | LahimerLH11 [311]       |
| Iiro Harjunoski                | 1           | 169         | HarjunoskiG02 [226]     |
| Sönke Hartmann                 | 1           | 577         | HartmannB10 [227]       |
| Fazirulhisyam Hashim           | 1           | 0           | AkramNHRSA23 [9]        |
| Shan He                        | 1           | 6           | He0GLW18 [229]          |
| Ivan Heckman                   | 1           | 0           | HeckmanB11 [234]        |
| Susanne Heipcke                | 1           | 5           | HeipckeCCS00 [242]      |
| Fabien Hermenier               | 1           | 28          | HermenierDL11 [245]     |
| Gerhard Hiermann               | 1           | 14          | RendlPHPR12 [426]       |
| Alessandro Hill                | 1           | 0           | HillTV21 [246]          |
| Te-Wei Ho                      | 1           | 2           | HoYCLLC18 [247]         |
| Petra Hofstedt                 | 1           | 1           | LiuLH19 [327]           |
| Mohammad Hossein Fazel Zarandi | 1           | 55          | ZarandiASC20 [545]      |
| John Hou                       | 1           | 1           | DavenportKRSH07 [140]   |
| Guoyu Huang                    | 1           | 1           | CohenHB17 [131]         |
| Felix Hübner                   | 1           | 0           | HubnerGSV21 [260]       |
| Amar Isli                      | 1           | 3           | Belhadji198 [72]        |
| Mustafa Ismael Salman          | 1           | 0           | AkramNHRSA23 [9]        |
| Fernando J. M. Marcellino      | 1           | 0           | SerraNM12 [450]         |
| Leon J. Osterweil              | 1           | 9           | ShinBBHO18 [454]        |
| H. J. Kim                      | 1           | 12          | SureshMOK06 [468]       |
| John J. Kanet                  | 1           | 0           | KanetAG04 [276]         |
| Colin J. Layfield              | 1           | 0           | Layfield02 [314]        |
| Andrew J. Mason                | 1           | 5           | Mason01 [356]           |
| Gregory J. Duck                | 1           | 344         | NethercoteSBBDT07 [382] |

Table 8: Co-Authors of Articles/Papers

| Author                   | Nr<br>Works | Nr<br>Cites | Entries                  |
|--------------------------|-------------|-------------|--------------------------|
| Vipul Jain               | 1           | 279         | JainG01 [263]            |
| Jean Jaubert             | 1           | 0           | PraletLJ15 [419]         |
| Jan Jelínek              | 1           | 0           | JelinekB16 [265]         |
| Yingjun Ji               | 1           | 0           | ZhangJZL22 [548]         |
| Zixi Jia                 | 1           | 0           | LiFJZLL22 [319]          |
| Yunfei Jiang             | 1           | 0           | LiuJ06 [329]             |
| Yue Jin                  | 1           | 2           | KrogtLPHJ07 [505]        |
| Marc Joliveau            | 1           | 5           | ChapadosJR11 [125]       |
| Peter Jonsson            | 1           | 1           | AngelsmarkJ00 [13]       |
| Jean Jourdan             | 1           | 0           | JourdanFRD94 [266]       |
| Nicolas Jozefowicz       | 1           | 9           | HebrardHJMPV16 [231]     |
| Jae-Yoon Jung            | 1           | 1           | ParkUJR19 [405]          |
| Pascal Jungblut          | 1           | 0           | JungblutK22 [267]        |
| T. K. Satish Kumar       | 1           | 4           | Kumar03 [303]            |
| Edmund K. Burke          | 1           | 41          | PourDERB18 [416]         |
| Mustafa K. Dogru         | 1           | 8           | TerekhovDOB12 [479]      |
| T. K. Feng               | 1           | 43          | BeckFW11 [55]            |
| Jayant Kalagnanam        | 1           | 1           | DavenportKRSH07 [140]    |
| Darshan Kalathia         | 1           | 43          | GedikKEK18 [191]         |
| Olli Kamarainen          | 1           | 9           | KamarainenS02 [270]      |
| Nor Kamariah Noordin     | 1           | 0           | AkramNHRSA23 [9]         |
| Jan Karel Lenstra        | 1           | 947         | BlazewiczLK83 [86]       |
| Czerniachowska, Kateryna | 1           | 0           | CzerniachowskaWZ23 [136] |
| Elena Kelareva           | 1           | 16          | KelarevaTK13 [277]       |
| Jan Kelbel               | 1           | 12          | KelbelH11 [278]          |
| H. Khorshidian           | 1           | 28          | ZarandiKS16 [544]        |
| Kamran Kianfar           | 1           | 0           | YounespourAKE19 [538]    |
| Philip Kilby             | 1           | 16          | KelarevaTK13 [277]       |
| Dongyun Kim              | 1           | 0           | KimCMLLP23 [282]         |
| Emre Kirac               | 1           | 43          | GedikKEK18 [191]         |
| Zeynep Kiziltan          | 1           | 1           | GalleguillosKSB19 [183]  |
| Christian Klanke         | 1           | 3           | KlankeBYE21 [283]        |
| Jana Koehler             | 1           | 2           | KoehlerBFFHPSSS21 [285]  |
| Wolfgang Kohlenbrein     | 1           | 0           | KovacsTKSG21 [297]       |
| Sebastian Kosch          | 1           | 4           | KoschB14 [289]           |
| Benjamin Kovács          | 1           | 0           | KovacsTKSG21 [297]       |
| Matthias Krainz          | 1           | 0           | GeibingerKKMMW21 [192]   |
| Andreas Krall            | 1           | 14          | ErtlK91 [164]            |
| Dieter Kranzlmüller      | 1           | 0           | JungblutK22 [267]        |
| Dominik Kress            | 1           | 17          | MullerMKP22 [372]        |
| Per Kreuger              | 1           | 0           | AronssonBK09 [20]        |
| Żywicki, Krzysztof       | 1           | 0           | CzerniachowskaWZ23 [136] |
| Mustafa Küçük            | 1           | 0           | KucukY19 [304]           |
| Elif Kürklü              | 1           | 4           | FrankK05 [178]           |
| András Kéri              | 1           | 1           | KeriK07 [279]            |
| Michael L. Pinedo        | 1           | 0           | KimCMLLP23 [282]         |
| Hassan L. Hijazi         | 1           | 2           | LimHTB16 [322]           |
| Philip L. Henneman       | 1           | 9           | ShinBBHO18 [454]         |
| Yiqing L. Luo            | 1           | 0           | LuoB22 [346]             |
| Philippe Lacomme         | 1           | 4           | BourreauGGLT22 [105]     |
| Daniel Lafond            | 1           | 0           | BoudreaultSLQ22 [104]    |
| Asma Lahimer             | 1           | 3           | LahimerLH11 [311]        |
| Feipei Lai               | 1           | 2           | HoYCLLC18 [247]          |
| Jui-Fen Lai              | 1           | 2           | HoYCLLC18 [247]          |
| André Langevin           | 1           | 84          | KhayatLR06 [280]         |

Table 8: Co-Authors of Articles/Papers

| Author                    | Nr<br>Works | Nr<br>Cites | Entries                    |
|---------------------------|-------------|-------------|----------------------------|
| Christophe Lecoutre       | 1           | 20          | GayHLS15 [187]             |
| Myungho Lee               | 1           | 0           | KimCMLLP23 [282]           |
| Kangbok Lee               | 1           | 0           | KimCMLLP23 [282]           |
| Solange Lemai-Chenevier   | 1           | 0           | PraletLJ15 [419]           |
| Xingyang Li               | 1           | 0           | LiFJZLL22 [319]            |
| Siyi Li                   | 1           | 0           | LiFJZLL22 [319]            |
| Xiaodong Li               | 1           | 0           | abs-2211-14492 [466]       |
| Guipeng Li                | 1           | 0           | ZhouGL15 [555]             |
| Hong Li                   | 1           | 4           | SunLYL10 [467]             |
| Nan Li                    | 1           | 4           | SunLYL10 [467]             |
| Yunbo Li                  | 1           | 1           | Madi-WambaLOBM17 [348]     |
| Heyse Li                  | 1           | 8           | TranPZLDB18 [495]          |
| Yi Li                     | 1           | 0           | LuoVLBM16 [345]            |
| Wan-Chung Liao            | 1           | 2           | HoYCLLC18 [247]            |
| Ariel Liebman             | 1           | 6           | He0GLW18 [229]             |
| Olivier Liess             | 1           | 22          | LiessM08 [320]             |
| Andrew Lim                | 1           | 5           | LimRX04 [321]              |
| Tong Liu                  | 1           | 0           | LiuCGM17 [328]             |
| Lingxuan Liu              | 1           | 12          | QinWSLS21 [422]            |
| Ke Liu                    | 1           | 1           | LiuLH19 [327]              |
| Rengkui Liu               | 1           | 24          | TangLWSK18 [473]           |
| Yuechang Liu              | 1           | 0           | LiuJ06 [329]               |
| Giovanni Lo Bianco        | 1           | 0           | ZhangBB22 [549]            |
| Doina Logofatu            | 1           | 2           | BadicaBIL19 [30]           |
| Thomas Lorigeon           | 1           | 22          | LorigeonBB02 [341]         |
| Roy Luo                   | 1           | 0           | LuoVLBM16 [345]            |
| Arnaud Lusson             | 1           | 0           | HebrardALLCMR22 [230]      |
| Chang Lv                  | 1           | 100         | MengZRZL20 [360]           |
| Zhimin Lv                 | 1           | 1           | ZhangLS12 [552]            |
| Sven Löffler              | 1           | 1           | LiuLH19 [327]              |
| J. M. van den Akker       | 1           | 2           | AkkerDH07 [503]            |
| Abdulrahman M. Abdulghani | 1           | 0           | AkramNHSA23 [9]            |
| O. M. Alade               | 1           | 0           | abs-1902-01193 [10]        |
| Shahrzad M. Pour          | 1           | 41          | PourDERB18 [416]           |
| Franco M. Novara          | 1           | 18          | NovaraNH16 [387]           |
| Rafael M. Gasca           | 1           | 7           | ValleMGTO3 [502]           |
| Jose M. Framinan          | 1           | 0           | AbreuPNF23 [3]             |
| Andy M. Ham               | 1           | 50          | HamC16 [224]               |
| Rolf Möhring              | 1           | 990         | BruckerDMNP99 [109]        |
| Jun Ma                    | 1           | 1           | MakMS10 [349]              |
| Amy Mainville Cohn        | 1           | 1           | BarlattCG08 [41]           |
| Kai-Ling Mak              | 1           | 1           | MakMS10 [349]              |
| V. Mani                   | 1           | 12          | SureshMOK06 [468]          |
| Oscar Manzano             | 1           | 1           | MurphyMB15 [374]           |
| Kourosh Marjani Rasmussen | 1           | 41          | PourDERB18 [416]           |
| Wallace, Mark G.          | 1           | 3           | SchuttFSW15 [446]          |
| Kim Marriott              | 1           | 10          | FalaschiGMP97 [169]        |
| Fae Martin                | 1           | 11          | MartinPY01 [355]           |
| Jacopo Mauro              | 1           | 0           | LiuCGM17 [328]             |
| Jim McInnes               | 1           | 15          | MalikMB08 [353]            |
| Zahra Mehdizadeh-Somarin  | 1           | 0           | Mehdizadeh-Somarin23 [357] |
| Haci Mehmet Alakas        | 1           | 1           | GurPAE23 [220]             |
| Haci Mehmet Alakaş        | 1           | 0           | GurEA19 [560]              |
| Itay Meiri                | 1           | 879         | DechterMP91 [145]          |
| Sebastian Meiswinkel      | 1           | 0           | WinterMMW22 [531]          |

Table 8: Co-Authors of Articles/Papers

| Author                   | Nr<br>Works | Nr<br>Cites | Entries                 |
|--------------------------|-------------|-------------|-------------------------|
| Gonzalo Mejía            | 1           | 0           | YuraszekMPV22 [542]     |
| Hein Meling              | 1           | 6           | MossigeGSMC17 [369]     |
| Julien Menana            | 1           | 0           | Menana11 [359]          |
| Jean-Marc Menaud         | 1           | 1           | Madi-WambaLOBM17 [348]  |
| Leilei Meng              | 1           | 100         | MengZRZL20 [360]        |
| Luc Mercier              | 1           | 32          | MercierH08 [361]        |
| Alexandre Mercier-Aubin  | 1           | 2           | Mercier-AubinGQ20 [362] |
| Vera Mersheeva           | 1           | 3           | FriedrichFMRST14 [179]  |
| Nadine Meskens           | 1           | 36          | WangMD15 [526]          |
| Bernd Meyer              | 1           | 13          | ThiruvadyBME09 [483]    |
| Kyung Min Kim            | 1           | 0           | HamPK21 [223]           |
| Gautam Mitra             | 1           | 28          | Darby-DowmanLMZ97 [138] |
| Elizabeth Montero        | 1           | 0           | YuraszekMCCR23 [543]    |
| Kyungduk Moon            | 1           | 0           | KimCMLLP23 [282]        |
| Morten Mossige           | 1           | 6           | MossigeGSMC17 [369]     |
| Alix Munier Kordon       | 1           | 1           | HanenKP21 [225]         |
| Stanislav Murín          | 1           | 2           | MurinR19 [373]          |
| Nicola Muscettola        | 1           | 14          | Muscettola02 [375]      |
| David Müller             | 1           | 17          | MullerMKP22 [372]       |
| András Márkus            | 1           | 2           | VanczaM01 [507]         |
| Marc-André Ménard        | 1           | 1           | BessiereHMQW14 [81]     |
| T. N. Wong               | 1           | 6           | ZhangYW21 [550]         |
| Sophie N. Parragh        | 1           | 0           | abs-1902-09244 [228]    |
| S. N. Omkar              | 1           | 12          | SureshMOK06 [468]       |
| Bahman Naderi            | 1           | 0           | NaderiBZ22 [377]        |
| Nina Narodytska          | 1           | 0           | ChuGNSW13 [126]         |
| Shiva Nejati             | 1           | 3           | AlesioNBG14 [154]       |
| Nicholas Nethercote      | 1           | 344         | NethercoteSBBDT07 [382] |
| Klaus Neumann            | 1           | 990         | BruckerDMNP99 [109]     |
| Franklin Nguewouo        | 1           | 0           | PopovicCGNC22 [415]     |
| Gilberto Nishioka        | 1           | 0           | SerraNM12 [450]         |
| Thierry Noulamo          | 1           | 0           | KameugneFND23 [273]     |
| Jari Nurmi               | 1           | 2           | QuSN06 [424]            |
| A. O. Amusat             | 1           | 0           | abs-1902-01193 [10]     |
| Ceyda Oguz               | 1           | 5           | EdisO11 [160]           |
| Olga Ohrimenko           | 1           | 127         | OhrimenkoSC09 [395]     |
| Bilal Omar Akram         | 1           | 0           | AkramNHRSA23 [9]        |
| Mirza Omer Beg           | 1           | 1           | BegB13 [64]             |
| Anne-Cécile Orgerie      | 1           | 1           | Madi-WambaLOBM17 [348]  |
| Gregor Ottosson          | 1           | 317         | HookerO03 [256]         |
| Mohand Ou Idir Khemmoudj | 1           | 8           | KhemmoudjPB06 [281]     |
| Pierre Ouellet           | 1           | 12          | OuelletQ13 [396]        |
| Soukaina Oujana          | 1           | 1           | OujanaAYB22 [399]       |
| Asma Ouled Bedhief       | 1           | 0           | Bedhief21 [63]          |
| Irem Ozkarahan           | 1           | 46          | TopalogluO11 [488]      |
| Débora P. Ronconi        | 1           | 30          | LunardiBLRV20 [343]     |
| Edward P. K. Tsang       | 1           | 1           | Tsang03 [501]           |
| W. P. M. Nuijten         | 1           | 0           | NuijtenA94 [392]        |
| Meghana Padmanabhan      | 1           | 8           | TranPZLDB18 [495]       |
| Miquel Palahí            | 1           | 3           | BofilLEGPSV14 [91]      |
| Catuscia Palamidessi     | 1           | 10          | FalaschiGMP97 [169]     |
| Pere Palà-Schönwälder    | 1           | 17          | EscobetPQPRA19 [165]    |
| Vaibhav Pandey           | 1           | 3           | PandeyS21a [401]        |
| Hoonseok Park            | 1           | 1           | ParkUJR19 [405]         |
| Myoung-Ju Park           | 1           | 0           | HamPK21 [223]           |

Table 8: Co-Authors of Articles/Papers

| Author                    | Nr<br>Works | Nr<br>Cites | Entries                    |
|---------------------------|-------------|-------------|----------------------------|
| Erica Pastore             | 1           | 0           | AlfieriGPS23 [11]          |
| Judea Pearl               | 1           | 879         | DechterMP91 [145]          |
| Theo Pedersen             | 1           | 1           | HanenKP21 [225]            |
| Bart Peintner             | 1           | 0           | MoffittPP05 [363]          |
| Jordi Pereira             | 1           | 0           | YuraszeckMPV22 [542]       |
| Laurent Perron            | 1           | 21          | DannaP03 [137]             |
| Stuckey, Peter J.         | 1           | 3           | SchuttFSW15 [446]          |
| Mehmet Pinarbasi          | 1           | 1           | GurPAE23 [220]             |
| Arthur Pinkney            | 1           | 11          | MartinPY01 [355]           |
| David Pisinger            | 1           | 2           | SacramentoSP20 [433]       |
| Maximilian Pohl           | 1           | 4           | PohlAK22 [413]             |
| Nicola Policella          | 1           | 8           | OddiPCC03 [394]            |
| Oliver Polo-Mejía         | 1           | 8           | Polo-MejiaALB20 [414]      |
| Paul Pop                  | 1           | 0           | BarzegaranZP20 [50]        |
| Louis Popovic             | 1           | 0           | PopovicCGNC22 [415]        |
| Marc Porcheron            | 1           | 8           | KhemmoudjPB06 [281]        |
| Marc Pouly                | 1           | 2           | KoehlerBFFHPSSS21 [285]    |
| Guillaume Pováda          | 1           | 0           | PovedaAA23 [417]           |
| Matthias Prandtstetter    | 1           | 14          | RendlPHPR12 [426]          |
| Patrick Prosser           | 1           | 0           | BeckPS03 [58]              |
| Jakob Puchinger           | 1           | 14          | RendlPHPR12 [426]          |
| Jean-Francois Puget       | 1           | 6           | Puget95 [421]              |
| Vicenç Puig               | 1           | 17          | EscobetPQPRA19 [165]       |
| Kenneth Pulliam           | 1           | 2           | KrogtLPHJ07 [505]          |
| Kenny Qili Zhu            | 1           | 0           | ZhuS02 [556]               |
| Ming Qin                  | 1           | 12          | QinWSLS21 [422]            |
| Tianbao Qin               | 1           | 27          | QinDCS20 [423]             |
| Yang Qu                   | 1           | 2           | QuSN06 [424]               |
| Yuchen Quan               | 1           | 2           | ShiYXQ22 [453]             |
| Joseba Quevedo            | 1           | 17          | EscobetPQPRA19 [165]       |
| Alain Quilliot            | 1           | 0           | ArtiguesHQT21 [22]         |
| Dominik R. Bleidorn       | 1           | 3           | KlankeBYE21 [283]          |
| Aliza R. Heching          | 1           | 10          | HechingH16 [233]           |
| Gregg R. Rabideau         | 1           | 0           | HebrardALLCMR22 [230]      |
| Wichniarek, Radosław      | 1           | 0           | CzerniachowskaWZ23 [136]   |
| Sebastian Raggl           | 1           | 0           | abs-1902-09244 [228]       |
| Vinasétan Ratheil Houndji | 1           | 5           | HoundjiSWD14 [259]         |
| Chandra Reddy             | 1           | 1           | DavenportKRSH07 [140]      |
| Yaping Ren                | 1           | 100         | MengZRZL20 [360]           |
| Andrea Rendl              | 1           | 14          | RendlPHPR12 [426]          |
| Hamid Reza Feyzmahdavian  | 1           | 2           | Astrand0F21 [26]           |
| Vahid Riahi               | 1           | 0           | RiahiNS018 [427]           |
| Diane Riopel              | 1           | 84          | KhayatLR06 [280]           |
| Gregory Rix               | 1           | 1           | PesantRR15 [409]           |
| Robert Rodosek            | 1           | 19          | RodosekW98 [428]           |
| Brian Rodrigues           | 1           | 5           | LimRX04 [321]              |
| Joaquín Rodríguez         | 1           | 117         | Rodriguez07 [430]          |
| Joaquín Rodríguez         | 1           | 0           | RodriguezDG02 [429]        |
| Jerome Rogerie            | 1           | 148         | LaborieRSV18 [308]         |
| Mohammad Rohaninejad      | 1           | 0           | Mehdizadeh-Somarin23 [357] |
| Maximiliano Rojel         | 1           | 0           | YuraszeckMCCR23 [543]      |
| Juli Romera               | 1           | 17          | EscobetPQPRA19 [165]       |
| Roberto Rossi             | 1           | 6           | RossiTHP07 [431]           |
| François Roubellat        | 1           | 84          | ArtiguesR00 [23]           |
| Stéphanie Roussel         | 1           | 0           | SquillaciPR23 [464]        |

Table 8: Co-Authors of Articles/Papers

| Author                    | Nr<br>Works | Nr<br>Cites | Entries                 |
|---------------------------|-------------|-------------|-------------------------|
| Didier Rozzonelli         | 1           | 0           | JourdanFRD94 [266]      |
| Ruiz, Rubén               | 1           | 2           | NaderiRR23 [378]        |
| Hana Rudová               | 1           | 2           | MurinR19 [373]          |
| Martin Ruskowski          | 1           | 1           | ParkUJR19 [405]         |
| Anna Ryabokon             | 1           | 3           | FriedrichFMRSS14 [179]  |
| William S. Havens         | 1           | 2           | DilkinaDH05 [155]       |
| Mohamed S. Gheith         | 1           | 1           | AbohashimaEG21 [2]      |
| Erlendur S. Thorsteinsson | 1           | 67          | Thorsteinsson01 [485]   |
| David Sacramento          | 1           | 2           | SacramentoSP20 [433]    |
| Shahram Saeidi            | 1           | 1           | Aliz dehS20 [12]        |
| Poonam Saini              | 1           | 3           | PandeyS21a [401]        |
| Fabio Salassa             | 1           | 0           | AlfieriGPS23 [11]       |
| Sophia Saller             | 1           | 2           | KoehlerBFFHPSSS21 [285] |
| Anastasia Salyaeva        | 1           | 2           | KoehlerBFFHPSSS21 [285] |
| Maria Sander              | 1           | 3           | FriedrichFMRSS14 [179]  |
| Eric Sanlaville           | 1           | 7           | PoderBS04 [412]         |
| Óscar Sapena              | 1           | 22          | GarridoOS08 [186]       |
| Özge Satir Akpunar        | 1           | 0           | IsikYA23 [262]          |
| Abdul Sattar              | 1           | 0           | RiahiNS018 [427]        |
| Peter Scheiblechner       | 1           | 2           | KoehlerBFFHPSSS21 [285] |
| Klaus Schild              | 1           | 23          | SchildW00 [438]         |
| Thomas Schlechte          | 1           | 10          | HeinzSSW12 [237]        |
| Thorsten Schmidt          | 1           | 1           | BenderWS21 [73]         |
| Günter Schmidt            | 1           | 38          | BlazewiczEP19 [85]      |
| Philipp Schrott-Kostwein  | 1           | 0           | KovacsTKSG21 [297]      |
| Uwe Schwiiegelshohn       | 1           | 4           | LimtanyakulS12 [325]    |
| Lena Secher Ejlersen      | 1           | 41          | PourDERB18 [416]        |
| Evgeny Selensky           | 1           | 0           | BeckPS03 [58]           |
| Thiago Serra              | 1           | 0           | SerraNM12 [450]         |
| Mei Sha                   | 1           | 27          | QinDCS20 [423]          |
| Yufen Shao                | 1           | 48          | GoelSHFS15 [204]        |
| Ganquan Shi               | 1           | 2           | ShiYXQ22 [453]          |
| Zhongshun Shi             | 1           | 12          | QinWLSL21 [422]         |
| Leyuan Shi                | 1           | 12          | QinWLSL21 [422]         |
| Stuart Siegel             | 1           | 1           | DavenportKRSH07 [140]   |
| Maria Silvia Pini         | 1           | 1           | GelainPRVW17 [197]      |
| Vanessa Simard            | 1           | 0           | BoudreaultSLQ22 [104]   |
| Pawel Sitek               | 1           | 0           | WikarekS19 [530]        |
| M. Slusky                 | 1           | 48          | GoelSHFS15 [204]        |
| Juha-Pekka Soininen       | 1           | 2           | QuSN06 [424]            |
| Xiaoqing Song             | 1           | 1           | ZhangLS12 [552]         |
| Shahabeddin Sotudian      | 1           | 55          | ZarandiASC20 [545]      |
| Francis Sourd             | 1           | 7           | SourdN00 [463]          |
| Helge Spieker             | 1           | 6           | MossigeGSMC17 [369]     |
| Arno Sprecher             | 1           | 840         | KolischS97 [286]        |
| Samuel Squillaci          | 1           | 0           | SquillaciPR23 [464]     |
| Andreas Starzacher        | 1           | 3           | FriedrichFMRSS14 [179]  |
| Wolfgang Steigerwald      | 1           | 0           | GeitzGSSW22 [196]       |
| Rüdiger Stephan           | 1           | 10          | HeinzSSW12 [237]        |
| Malgorzata Sterna         | 1           | 38          | BlazewiczEP19 [85]      |
| Robin Stöhr               | 1           | 0           | GeitzGSSW22 [196]       |
| Christian Stürck          | 1           | 0           | HubnerGSV21 [260]       |
| Kaile Su                  | 1           | 0           | RiahiNS018 [427]        |
| Wei Su                    | 1           | 1           | MakMS10 [349]           |
| Kemal Subulan             | 1           | 5           | SubulanC22 [465]        |

Table 8: Co-Authors of Articles/Papers

| Author                   | Nr<br>Works | Nr<br>Cites | Entries                   |
|--------------------------|-------------|-------------|---------------------------|
| Premysl Sucha            | 1           | 2           | BenediktSMVH18 [76]       |
| Quanxin Sun              | 1           | 24          | TangLWSK18 [473]          |
| Zheng Sun                | 1           | 4           | SunLYL10 [467]            |
| Suresh Sundaram          | 1           | 12          | SureshMOK06 [468]         |
| Pavel Surynek            | 1           | 2           | BartakCS10 [45]           |
| Jiri Svancara            | 1           | 0           | SvancaraB22 [469]         |
| Ria Szeredi              | 1           | 9           | SzerediS16 [470]          |
| Alina Sirbu              | 1           | 1           | GalleguillosKSB19 [183]   |
| Christos T. Maravelias   | 1           | 15          | MaraveliasG04 [354]       |
| Willian T. Lunardi       | 1           | 30          | LunardiBLRV20 [343]       |
| Guido Tack               | 1           | 344         | NethercoteSBBDT07 [382]   |
| Eric Taillard            | 1           | 1568        | Taillard93 [471]          |
| Siyu Tang                | 1           | 7           | VlkHT21 [520]             |
| Yuanjie Tang             | 1           | 24          | TangLWSK18 [473]          |
| Fabio Tardivo            | 1           | 0           | TardivoDFMP23 [474]       |
| Armagan Tarim            | 1           | 6           | RossiTHP07 [431]          |
| Ehsan Tarkesh Esfahani   | 1           | 0           | YounespourAKE19 [538]     |
| Reza Tavakkoli-Moghaddam | 1           | 0           | Fatemi-AnarakiMFN22 [173] |
| Nikolay Tchernev         | 1           | 4           | BourreauGGLT22 [105]      |
| Paolo Terenziani         | 1           | 1           | BrusoniCLMMT96 [110]      |
| Willian Tessaro Lunardi  | 1           | 0           | Lunardi20 [344]           |
| Stephan Teuschl          | 1           | 0           | FrohnerTR19 [181]         |
| Feydy, Thibaut           | 1           | 3           | SchuttFSW15 [446]         |
| Charles Thomas           | 1           | 6           | CappartTSR18 [115]        |
| Jordan Ticktin           | 1           | 0           | HillTV21 [246]            |
| Kevin Tierney            | 1           | 16          | KelarevaTK13 [277]        |
| Christian Timpe          | 1           | 42          | Timpe02 [486]             |
| Mary Tom                 | 1           | 0           | Tom19 [487]               |
| Seyda Topaloglu          | 1           | 46          | TopalogluO11 [488]        |
| Miguel Toro              | 1           | 7           | ValleMGTO3 [502]          |
| Philippe Torres          | 1           | 26          | TorresL00 [489]           |
| Meriem Touat             | 1           | 0           | TouatBT22 [490]           |
| Touraivane               | 1           | 2           | Touraivane95 [491]        |
| H       Toussaint        | 1           | 0           | ArtiguesHQT21 [22]        |
| Mariem Trojet            | 1           | 11          | TrojetHL11 [500]          |
| Semra Tunali             | 1           | 31          | OzturkTHO13 [400]         |
| Paul Tyler               | 1           | 0           | HebrardTW05 [232]         |
| Jumyung Um               | 1           | 1           | ParkUJR19 [405]           |
| J. V. Moccellini         | 1           | 0           | AbreuAPNM21 [141]         |
| Behdin Vahedi-Nouri      | 1           | 0           | Fatemi-AnarakiMFN22 [173] |
| Roshanaei, Vahid         | 1           | 2           | NaderiRR23 [378]          |
| Sasha Van Cauwelaert     | 1           | 2           | CauwelaertDS20 [123]      |
| Thierry Vidal            | 1           | 58          | BidotVLB09 [82]           |
| Karen Villaverde         | 1           | 0           | VillaverdeP04 [519]       |
| Mariona Vil              | 1           | 0           | YuraszeckMPV22 [542]      |
| Rebekka Volk             | 1           | 0           | HubnerGSV21 [260]         |
| Holger Voos              | 1           | 30          | LunardiBLRV20 [343]       |
| Thomas W. M. Vossen      | 1           | 0           | HillTV21 [246]            |
| Kai Waelti               | 1           | 2           | KoehlerBFFHPSSS21 [285]   |
| Runsun Wang              | 1           | 12          | QinWSLS21 [422]           |
| Futian Wang              | 1           | 24          | TangLWSK18 [473]          |
| Shouyang Wang            | 1           | 49          | ZhangW18 [551]            |
| Tao Wang                 | 1           | 36          | WangMD15 [526]            |
| Ezra Wari                | 1           | 11          | WariZ19 [527]             |
| Jan Weglarz              | 1           | 38          | BlazewiczEP19 [85]        |



Table 8: Co-Authors of Articles/Papers

| Author                 | Nr<br>Works | Nr<br>Cites | Entries                 |
|------------------------|-------------|-------------|-------------------------|
| Kong Wei Lye           | 1           | 0           | LauLN08 [313]           |
| Johan Wessén           | 1           | 2           | WessenCS20 [529]        |
| Jaroslav Wikarek       | 1           | 0           | WikarekS19 [530]        |
| Campbell Wilson        | 1           | 6           | He0GLW18 [229]          |
| Michael Winkler        | 1           | 10          | HeinzSSW12 [237]        |
| David Wittwer          | 1           | 1           | BenderWS21 [73]         |
| Jörg Würtz             | 1           | 23          | SchildW00 [438]         |
| Quanshi Xia            | 1           | 13          | ChuX05 [127]            |
| Hegen Xiong            | 1           | 18          | FanXG21 [171]           |
| Zhou Xu                | 1           | 5           | LimRX04 [321]           |
| Yang Xu                | 1           | 2           | ShiYXQ22 [453]          |
| Tanya Y. Tang          | 1           | 6           | TangB20 [472]           |
| El Yaakoubi Anass      | 1           | 0           | FallahiAC20 [170]       |
| Hong Yan               | 1           | 8           | HookerY02 [258]         |
| Moli Yang              | 1           | 1           | YangSS19 [537]          |
| Zhouwang Yang          | 1           | 2           | ShiYXQ22 [453]          |
| Jia-Sheng Yao          | 1           | 2           | HoYCLLC18 [247]         |
| Min Yao                | 1           | 4           | SunLYL10 [467]          |
| Seung Yeob Shin        | 1           | 9           | ShinBBHO18 [454]        |
| Vassilios Yfantis      | 1           | 3           | KlankeBYE21 [283]       |
| Maryam Younespour      | 1           | 0           | YounespourAKE19 [538]   |
| Chunxia Yu             | 1           | 6           | ZhangYW21 [550]         |
| Xinghuo Yu             | 1           | 11          | MartinPY01 [355]        |
| Oleg Yu. Gusikhin      | 1           | 1           | BarlattCG08 [41]        |
| Peter Yun Zhang        | 1           | 8           | TranPZLDB18 [495]       |
| Pinar Yunusoglu        | 1           | 20          | YunusogluY22 [540]      |
| Marco Zaffalon         | 1           | 28          | Darby-DowmanLMZ97 [138] |
| Stéphane Zampelli      | 1           | 3           | DerrienPZ14 [153]       |
| Bahram Zarrin          | 1           | 0           | BarzegaranZP20 [50]     |
| Daniel Zawack          | 1           | 1054        | AdamsBZ88 [6]           |
| Mengjie Zhang          | 1           | 0           | abs-2402-00459 [383]    |
| Haotian Zhang          | 1           | 0           | ZhangJZL22 [548]        |
| Luping Zhang           | 1           | 6           | ZhangYW21 [550]         |
| Chaoyong Zhang         | 1           | 100         | MengZRZL20 [360]        |
| Biao Zhang             | 1           | 100         | MengZRZL20 [360]        |
| Sicheng Zhang          | 1           | 49          | ZhangW18 [551]          |
| Xujun Zhang            | 1           | 1           | ZhangLS12 [552]         |
| Lihui Zhang            | 1           | 0           | ZouZ20 [559]            |
| Jiachen Zhang          | 1           | 0           | ZhangBB22 [549]         |
| Guoqing Zhang          | 1           | 0           | NaderiBZ22 [377]        |
| Jinlian Zhou           | 1           | 0           | ZhouGL15 [555]          |
| Weihang Zhu            | 1           | 11          | WariZ19 [527]           |
| Pawel Zielinski        | 1           | 13          | FortinZDF05 [177]       |
| Jürgen Zimmermann      | 1           | 25          | KreterSSZ18 [300]       |
| Xin Zou                | 1           | 0           | ZouZ20 [559]            |
| Mathijs de Weerd       | 1           | 1           | BogaerdW19 [504]        |
| Bruno de Athayde Prata | 1           | 0           | AbreuAPNM21 [141]       |
| Roman van der Krogt    | 1           | 2           | KrogtLPHJ07 [505]       |
| Pim van den Bogaerd    | 1           | 1           | BogaerdW19 [504]        |
| Stefano Di Alesio      | 1           | 3           | AlesioNBG14 [154]       |
| Ulas Özen              | 1           | 8           | TerekhovDOB12 [479]     |
| Selin Özpeynirci       | 1           | 31          | GokgurHO18 [205]        |
| Cemalettin Öztürk      | 1           | 31          | OzturkTHO13 [400]       |
| Nahum Álvarez          | 1           | 0           | PovedaAA23 [417]        |

Table 8: Co-Authors of Articles/Papers

| Author         | Nr<br>Works | Nr<br>Cites | Entries          |
|----------------|-------------|-------------|------------------|
| Seán Óg Murphy | 1           | 1           | MurphyMB15 [374] |
| Gizem Çakir    | 1           | 5           | SubulanC22 [465] |

## 5 Problem Classification

Table 9: Problem Classification Types

| Code                  | Name  |
|-----------------------|---|
| JSSP                  | Job-Shop Scheduling Problem   |
| JSPT                  | Job-Shop Scheduling Problem with Transportation   |
| PP-MS-MMRCPSP/max-cal | partially preemptive- multi-skill/mode resource-constrained project scheduling problem with generalized precedence relations and resource calendars |
| RCPSP                 | Resource Constrained Project Scheduling Problem   |
| TMS                   | Transmission Network Maintenance Planning   |
| PMSP                  | Parallel Machine Scheduling Problem   |
| HFF                   | Hybrid Flexible Flow-shop   |
| $HFFm tt C_{\max}$    | Hybrid Flexible Flowshop with Transportation Times  |
| OSP                   | Oven Scheduling Problem   |
| PTC                   | Scheduling Problem with Time Constraints  |
| GCSP                  | Group Cumulative Scheduling Problem   |
| 2BPHFSP               | Two-Stage Bin Packing and Hybrid Flow Shop Scheduling Problem   |
| CTW                   | Cable Tree Wiring Problem   |
| CHSP                  | Cyclic Hoist Scheduling Problem   |
| CECSP                 | Continuous Energy-Constrained Scheduling Problem  |
| CuSP                  | Cumulative Scheduling Problem   |
| SBSFMMAL              | Simultaneous Balancing and Scheduling of Flexible Mixed Model Assembly Lines  |
| SMSDP                 | steel mill slab design problem  |
| KRFP                  | kernel resource feasibility problem   |
| TCSP                  | Temporal Constraint Satisfaction Problem  |
| PJSSP                 | Pre-emptive Job-Shop scheduling Problem   |
| MGAP                  | Modified Generalized Assignment Problem   |
| EOSP                  | Earth Observation Scheduling Problem  |
| SCC                   | Steel-making and continuous casting   |
| OSSP                  | Open Shop Scheduling Problem  |
| FJS                   | Fixed Job Scheduling  |
| RCPSPDC               | Resource-constrained Project Scheduling Problem with Discounted Cashflow  |
| LSFRP                 | Liner Shipping Fleet Repositioning Problem  |
| BPCTOP                | Bulk Port Cargo Throughput Optimisation Problem   |

## 6 Concept Matching

In order to automatically find out properties of the articles, we try to find certain concepts in the pdf versions of the articles. We manually defined an ontology of important concepts to look for, and defined regular expressions that would recognize these concepts in the text. We use the *pdfgrep* command to search for the number of occurrences of certain regular expressions in the files. This often clearly identifies the constraints used in the model. We group the results by number of occurrences of the concept in the text of the work. Note that this is only approximate, as we do include the full pdf file in the search. A concept might only be mentioned in some of the title of citations used in the paper, we do count them in our results, as we were not able to remove the bibliography from the main body of the work.

Overall, if a work is not mentioned as using the concept, the the text does not contain a match to the corresponding regular expression. A fundamental limitation of this approach is that it only really works for text written in the language the regular expressions are designed for (in our case English), and not those written in another language. We could overcome this limitation by defining all concepts in other languages as well, and then using a language flag to identify the language the text is written in.

Note that we only show the first 30 matching entries in each concept category, and list the total number of matches if there are more than 30 matches.

## 6.1 Concept Type Concepts

Table 10: Works for Concepts of Type Concepts

| Type     | Keyword          | High   | Medium  | Low   |
|----------|------------------|--|---|---|
| Concepts | Allen's algebra  |  |   |   |
| Concepts | BOM              | SubulanC22 [465]   |   | abs-1902-01193 [10]   |
| Concepts | activity         | TardivoDFMP23 [474], AalianPG23 [1], PovedaAA23 [417], TouatBT22 [490], CampeauG22 [113], SubulanC22 [465], SvancaraB22 [469], BenderWS21 [73], KlankeBYE21 [283], HubnerGSV21 [260], Astrand21 [25], Godet21a [202], BadicaBI20 [29], ZouZ20 [559], ZarandiASC20 [545], Polo-MejiaALB20 [414], AstrandJZ20 [28], BadicaBIL19 [30], abs-1902-09244 [228], abs-1911-04766 [193], GeibingerMM19 [194], MurinR19 [373], YounespourAKE19 [538], LaborieRSV18 [308], GokgurHO18 [205], BorghesiBLMB18 [102], TangLWSK18 [473], MusliuSS18 [376], AstrandJZ18 [27]... (Total: 142) | YuraszeckMCCR23 [543], Bit-Monnot23 [84], BoudreaultSLQ22 [104], PopovicCGNC22 [415], LunardiBLRV20 [343], Lunardi20 [344], YangSS19 [537], EscobetPQPRA19 [165], Novas19 [388], ShinBBHO18 [454], SchuttS16 [447], TranWDRFOVB16 [499], BoothNB16 [101], VilimLS15 [518], Derrien15 [151], GoelSHFS15 [204], DoulabiRP14 [158], LombardiM13 [338], BonfiettiM12 [99], ChapadosJR11 [125], ZibranR11 [557], SchuttFSW09 [442], PoderB08 [411], GarridoOS08 [186], KrogtLPHJ07 [505], Simonis07 [461], KhayatLR06 [280], Geske05 [198], MoffittPP05 [363]... (Total: 36) | PrataAN23 [420], CzerniachowskaWZ23 [136], ShaikhK23 [451], abs-2312-13682 [408], SquillaciPR23 [464], abs-2305-19888 [241], PerezGSL23 [407], HeinzNVH22 [240], PohlAK22 [413], abs-2211-14492 [466], HebrardALLCMR22 [230], OuelletQ22 [398], MullerMKP22 [372], YunusogluY22 [540], ZhangYW21 [550], HillTV21 [246], GeibingerMM21 [195], PandeyS21a [401], Astrand0F21 [26], QinDCS20 [423], Mercier-AubinGQ20 [362], SacramentoSP20 [433], NishikawaSTT19 [386], abs-1902-01193 [10], Tom19 [487], GalleguillosKSB19 [183], CauwelaertLS18 [122], NishikawaSTT18 [384], NishikawaSTT18a [385]... (Total: 77) |
| Concepts | batch process    | LacknerMMWW23 [310], LacknerMMWW21 [309], QinWSLS21 [422], ZarandiASC20 [545], NovaraNH16 [387], KoschB14 [289], Malapert11 [350]  | TangB20 [472], NovasH10 [389], Vilim02 [509], SimonisC95 [462]  | PrataAN23 [420], IsikYA23 [262], YuraszeckMCCR23 [543], YunusogluY22 [540], MullerMKP22 [372], SvancaraB22 [469], OujanaAYB22 [399], LuoB22 [346], LiFJZLL22 [319], ColT22 [134], AbreuN22 [142], GeitzGSSW22 [196], FanXG21 [171], ZhangYW21 [550], KlankeBYE21 [283], Lunardi20 [344], MengZRZL20 [360], EscobetPQPRA19 [165], Ham18 [222], FahimiOQ18 [168], LaborieRSV18 [308], CauwelaertDMS16 [121], Dejemeppe16 [146], GrimesH10 [210], Simonis07 [461], VilimBC05 [517], ArtiguesBF04 [21], Vilim04 [511], Simonis07 [461]  |
| Concepts | bill of material |  |   |   |
| Concepts | buffer-capacity  |  | SureshMOK06 [468]   | LiFJZLL22 [319], OujanaAYB22 [399], RiahiNS018 [427], BonfiettiLBM14 [96], NovasH14 [391], TerekhovTDB14 [480], ZeballosH05 [546]   |
| Concepts | cmax             | JuvinHHL23 [268], YuraszeckMCCR23 [543], AbreuNP23 [143], YuraszeckMC23 [541], KameugneFND23 [273], NaderiRRR23 [378], abs-2305-19888 [241], IsikYA23 [262], YunusogluY22 [540], FetgoD22 [174], ZhangBB22 [549], AbreuN22 [142], abs-2211-14492 [466], Godet21a [202], QinWSLS21 [422], AbohashimaEG21 [2], ArmstrongGOS21 [18], Polo-MejiaALB20 [414], QinDCS20 [423], MejiaY20 [358], MengZRZL20 [360], GodetLHS20 [203], Lunardi20 [344], WikarekS19 [530], YounespourAKE19 [538], MalapertN19 [351], Ham18 [222], GedikKEK18 [191], KameugneFGOQ18 [272]... (Total: 46) | Mehdizadeh-Somarin23 [357], BoudreaultSLQ22 [104], MullerMKP22 [372], ArmstrongGOS22 [19], HamPK21 [223], AbreuAPNM21 [141], ParkUJR19 [405], Novas19 [388], ArbaouiY18 [17], WangMD15 [526], ZhouGL15 [555], ZhangLS12 [552], BeckFW11 [55], BartakSR10 [47], MoffittPP05 [363], Muscettola02 [375], ArtiguesR00 [23], SourdN00 [463], BlazewiczLK83 [86]  | JuvinHL23 [269], Teppan22 [478], ZhangYW21 [550], HanenKP21 [225], HubnerGSV21 [260], ZarandiASC20 [545], GokgurHO18 [205], LiuCGM17 [328], BofillCSV17 [90], SialaAH15 [457], KoschB14 [289], SchuttFSW13 [445], GuSW12 [219], abs-1009-0347 [443], WatsonB08 [528], LiessM08 [320], AkkerDH07 [503], KeriK07 [279], KhayatLR06 [280], Laborie03 [305], BaptisteP00 [38], FocacciLN00 [175]  |

Table 10: Works for Concepts of Type Concepts

| Type     | Keyword            | High  | Medium   | Low  |
|----------|--------------------|---|--|--|
| Concepts | completion-time    | PrataAN23 [420], JuvinHL23 [269], AbreuNP23 [143], Mehdizadeh-Somarin23 [357], AlfieriGPS23 [11], NaderiRR23 [378], KameugneFND23 [273], YuraszeckMPV22 [542], AbreuN22 [142], YunusogluY22 [540], SubulanC22 [465], OuelletQ22 [398], NaderiBZ22 [377], FetgoD22 [174], KlankeBYE21 [283], Astrand21 [25], Bedhief21 [63], ArmstrongGOS21 [18], MejiaY20 [358], LunardiBLRV20 [343], QinDCS20 [423], ZarandiASC20 [545], Lunardi20 [344], YounespourAKE19 [538], FahimiOQ18 [168], RiahiNS018 [427], ZhangW18 [551], ArbaouiY18 [17], GedikKEK18 [191]... (Total: 62)  | CzerniachowskaWZ23 [136], abs-2305-19888 [241], MullerMKP22 [372], ColT22 [134], Teppan22 [478], ZhangBB22 [549], TouatBT22 [490], OujanaAYB22 [399], HeinzNVH22 [240], abs-2211-14492 [466], LiFJZLL22 [319], AbreuAPNM21 [141], HanenKP21 [225], FanXG21 [171], GeibingerMM21 [195], QinWSLS21 [422], NattafM20 [381], Mercier-AubinGQ20 [362], Polo-MejiaALB20 [414], YangSS19 [537], abs-1902-09244 [228], BogaerdtW19 [504], abs-1911-04766 [193], MalapertN19 [351], GeibingerMM19 [194], ParkUJR19 [405], Ham18 [222], OuelletQ18 [397], KreterSS17 [299]... (Total: 57)  | abs-2402-00459 [383], TasselGS23 [475], MontemanniD23a [367], AkramNHRS23 [9], IsikYA23 [262], abs-2306-05747 [476], PerezGSL23 [407], JuvinHHL23 [268], FarsiTM22 [172], PopovicCGNC22 [415], PohlAK22 [413], GeitzGSSW22 [196], CampeauG22 [113], ZhangJZL22 [548], WinterMMW22 [531], ArmstrongGOS22 [19], HubnerGSV21 [260], VlkHT21 [520], Godet21a [202], PandeyS21a [401], HamPK21 [223], WessenCS20 [529], BadicaBI20 [29], MengZRZL20 [360], MokhtarzadehTNF20 [364], AntuoriHHEN20 [14], GodetLHS20 [203], SacramentoSP20 [433], ZouZ20 [559]... (Total: 90) |
| Concepts | continuous-process |   |  | FarsiTM22 [172], Dejemeppe16 [146], GaySS14 [190], Bartak02 [43], SimonisC95 [462]   |
| Concepts | distributed        | PrataAN23 [420], NaderiRR23 [378], ZarandiASC20 [545], MengZRZL20 [360], He0GLW18 [229], TranPZLDB18 [495], BridiLBBM16 [108], BridiBLMB16 [107], ZhouGL15 [555], TerekhovTDB14 [480], BonfiettiLM14 [98], BartakS11 [46], BartakSR10 [47], RuggieroBBMA09 [432], HoeveGSL07 [506], RossiTHP07 [431], BeckW07 [62], SureshMOK06 [468], GomesHS06 [209], Geske05 [198], BeckW04 [60], Beck99 [51], LammaMM97 [312]   | IsikYA23 [262], ShaikhK23 [451], AbreuNP23 [143], OujanaAYB22 [399], JungblutK22 [267], AbreuN22 [142], YuraszeckMPV22 [542], Godet21a [202], AbreuAPNM21 [141], MokhtarzadehTNF20 [364], ZouZ20 [559], NishikawaSTT19 [386], BorghesiBLMB18 [102], ZhangW18 [551], ZarandiKS16 [544], AlesioNBG14 [154], TranTDB13 [496], BegB13 [64], HermenierDL11 [245], LopesCSM10 [339], SunLYL10 [467], Lombardi10 [330], BeniniBGM06 [77], ZhuS02 [556], SchildW00 [438], Wallace96 [522]  | YuraszeckMC23 [541], KimCMLLP23 [282], Bit-Monnot23 [84], AlfieriGPS23 [11], MontemanniD23 [368], abs-2305-19888 [241], SquillaciPR23 [464], GurPAE23 [220], AkramNHRS23 [9], abs-2211-14492 [466], NaderiBZ22 [377], ZhangBB22 [549], HeinzNVH22 [240], TouatBT22 [490], BoudreaultSLQ22 [104], Teppan22 [478], ColT22 [134], LiFJZLL22 [319], FarsiTM22 [172], WinterMMW22 [531], HamPK21 [223], Astrand21 [25], GeibingerKKMMW21 [192], PandeyS21a [401], FanXG21 [171], BenderWS21 [73], KovacsTKSG21 [297], ZhangYW21 [550], VlkHT21 [520]... (Total: 112)        |
| Concepts | due-date           | OujanaAYB22 [399], ColT22 [134], NaderiBZ22 [377], FanXG21 [171], AntuoriHHEN21 [15], Lunardi20 [344], AntuoriHHEN20 [14], ZarandiASC20 [545], TangB20 [472], Mercier-AubinGQ20 [362], abs-1902-09244 [228], Novas19 [388], abs-1911-04766 [193], GoldwaserS18 [207], Tesch18 [482], GoldwaserS17 [206], Dejemeppe16 [146], NovaraNH16 [387], BajestaniB15 [33], DoulabiRP14 [158], KoschB14 [289], HoundjiSWD14 [259], BajestaniB13 [32], LimtanyakulS12 [325], KelbelH11 [278], BajestaniB11 [31], NovasH10 [389], ZeballosQH10 [547], BartakSR10 [47]... (Total: 42) | PrataAN23 [420], LacknerMMWW23 [310], IsikYA23 [262], NaderiRR23 [378], YunusogluY22 [540], abs-2211-14492 [466], WinterMMW22 [531], Godet21a [202], LacknerMMWW21 [309], GeibingerMM21 [195], GroleazNS20a [215], GeibingerMM19 [194], FahimiOQ18 [168], ZarandiKS16 [544], GrimesIOS14 [214], HeinzSB13 [239], GrimesH11 [211], Malapert11 [350], LombardiM10a [334], MakMS10 [349], SchuttW10 [448], Davenport10 [139], Lombardi10 [330], ThiruvadyBME09 [483], abs-0907-0939 [410], MouraSCL08a [370], Limtanyakul07 [324], SadykovW06 [435], Hooker05a [251]... (Total: 38) | abs-2402-00459 [383], YuraszeckMC23 [541], KimCMLLP23 [282], JuvinHHL23 [268], ZhangJZL22 [548], SubulanC22 [465], TouatBT22 [490], YuraszeckMPV22 [542], MullerMKP22 [372], Astrand21 [25], KlankeBYE21 [283], HubnerGSV21 [260], Bedhief21 [63], KovacsTKSG21 [297], VlkHT21 [520], HanenKP21 [225], LunardiBLRV20 [343], MejiaY20 [358], Polo-MejiaALB20 [414], GroleazNS20 [216], AstrandJZ20 [28], ParkUJR19 [405], EscobetPQPRA19 [165], GokgurHO18 [205], GedikKEK18 [191], LaborieRSV18 [308], Laborie18a [307], Ham18 [222], Pralet17 [418]... (Total: 70)    |
| Concepts | earliness          | PrataAN23 [420], KimCMLLP23 [282], TouatBT22 [490], PohlAK22 [413], ZarandiASC20 [545], abs-1902-09244 [228], LaborieRSV18 [308], Dejemeppe16 [146], ZarandiKS16 [544], LombardiM12 [337], KelbelH11 [278], GrimesH11 [211], Laborie09 [306], MonetteDH09 [366], KeriK07 [279], DannaP03 [137], BeckR03 [59]  | FarsiTM22 [172], MengZRZL20 [360], KovacsB11 [292], Davenport10 [139]  | abs-2402-00459 [383], NaderiRR23 [378], AbreuNP23 [143], IsikYA23 [262], AlfieriGPS23 [11], LacknerMMWW23 [310], YunusogluY22 [540], FanXG21 [171], LacknerMMWW21 [309], Polo-MejiaALB20 [414], Mercier-AubinGQ20 [362], ColT19 [133], GokgurHO18 [205], ZhangW18 [551], NovaraNH16 [387], VilimLS15 [518], LimBTBB15 [323], SialaAH15 [457], Siala15a [456], BajestaniB13 [32], HeinzB12 [235], EdisO11 [160], KovacsK11 [294], ZeballosQH10 [547], NovasH10 [389], KovacsB07 [290], KovacsV06 [296], GodardLN05 [201], QuirogaZH05 [425]... (Total: 34)              |

Table 10: Works for Concepts of Type Concepts

| Type     | Keyword   | High  | Medium   | Low   |
|----------|-----------|---|--|---|
| Concepts | flow-shop | PrataAN23 [420], CzerniachowskaWZ23 [136], NaderiRR23 [378], AlfieriGPS23 [11], IsikYA23 [262], JuvinHL23 [269], AbreuNP23 [143], ArmstrongGOS22 [19], OujanaAYB22 [399], ColT22 [134], ZhangJZL22 [548], AbreuN22 [142], LiFJZLL22 [319], Astrand21 [25], QinWSLS21 [422], ArmstrongGOS21 [18], Bedhief21 [63], AbreuAPNM21 [141], ZarandiASC20 [545], MengZRZL20 [360], Lunardi20 [344], AstrandJJ20 [28], Novas19 [388], ParkUJR19 [405], ZhangW18 [551], ZhouGL15 [555], BajestaniB15 [33], TerekhovTDB14 [480], Malapert11 [350]... (Total: 32)  | Mehdizadeh-Somarin23 [357], NaderiBZ22 [377], YuraszeckMPV22 [542], Godet21a [202], KoehlerBFFHPSSS21 [285], FanXG21 [171], TangB20 [472], abs-1902-09244 [228], LaborieRSV18 [308], Dejemepe16 [146], GrimesH11 [211], KovacsB11 [292], BartakSR10 [47], AggounB93 [7], BlazewiczLK83 [86]  | TasselGS23 [475], AalianPG23 [1], YuraszeckMCCR23 [543], abs-2305-19888 [241], JuvinHHL23 [268], abs-2306-05747 [476], abs-2211-14492 [466], TouatBT22 [490], HeinzNVH22 [240], Teppan22 [478], LacknerMMWW21 [309], HillTV21 [246], abs-2102-08778 [132], KovacsTKSG21 [297], PandeyS21a [401], HamPK21 [223], WallaceY20 [523], SacramentoSP20 [433], LunardiBLRV20 [343], WikarekS19 [530], RiahiNS018 [427], HookerH18 [257], GokgurHO18 [205], GoldwaserS18 [207], ZarandiKS16 [544], TranTDB13 [496], OzturkTHO13 [400], LombardiM12 [337], BillautHL12 [83]... (Total: 50) |
| Concepts | flow-time | YuraszeckMPV22 [542], FanXG21 [171], ZarandiASC20 [545], NattafM20 [381], MalapertN19 [351], ZhangW18 [551], TerekhovTDB14 [480], TranTDB13 [496]   | PrataAN23 [420], AlfieriGPS23 [11], YunusogluY22 [540], Malapert11 [350], BeckW07 [62]   | TasselGS23 [475], abs-2306-05747 [476], YuraszeckMC23 [541], YuraszeckMCCR23 [543], LiFJZLL22 [319], AbreuN22 [142], KoehlerBFFHPSSS21 [285], MengZRZL20 [360], ParkUJR19 [405], Novas19 [388], BajestaniB15 [33], KovacsB11 [292], EdisO11 [160], QuirogaZH05 [425], BeckPS03 [58], BeckR03 [59]   |
| Concepts | inventory | SubulanC22 [465], Astrand21 [25], GilesH16 [199], GoelSHFS15 [204], SerraNM12 [450], LopesCSM10 [339], RossiTHP07 [431], Timpe02 [486], Beck99 [51], BeckDF97 [54]  | ZarandiASC20 [545], Novas19 [388], BajestaniB13 [32], MakMS10 [349], LauLN08 [313], MouraSCL08a [370], DavenportKRSH07 [140], GarganiR07 [184], BeckF00 [57]   | PrataAN23 [420], PerezGSL23 [407], abs-2312-13682 [408], AlfieriGPS23 [11], GurPAE23 [220], AbreuN22 [142], PohlAK22 [413], YunusogluY22 [540], HubnerGSV21 [260], KovacsTKSG21 [297], GroleazNS20a [215], GroleazNS20 [216], abs-1902-09244 [228], YounespourAKE19 [538], WikarekS19 [530], Ham18 [222], LaborieRSV18 [308], ShinBBHO18 [454], SchuttS16 [447], SimoninAHL15 [459], TerekhovTDB14 [480], HoundjiSWD14 [259], KelarevaTK13 [277], HeinzSSW12 [237], LombardiM12 [337], KelbelH11 [278], BajestaniB11 [31], Malapert11 [350], Lombardi10 [330]... (Total: 38)      |
| Concepts | job       | PrataAN23 [420], abs-2402-00459 [383], KimCMLLP23 [282], JuvinHHL23 [268], AlfieriGPS23 [11], YuraszeckMC23 [541], AbreuNP23 [143], IsikYA23 [262], WangB23 [525], LacknerMMWW23 [310], Bit-Monnot23 [84], CzerniachowskaWZ23 [136], abs-2306-05747 [476], NaderiRR23 [378], JuvinHL23 [269], TasselGS23 [475], Mehdizadeh-Somarin23 [357], YuraszeckMCCR23 [543], LiFJZLL22 [319], TouatBT22 [490], YunusogluY22 [540], GeitzGSSW22 [196], MullerMKP22 [372], WinterMMW22 [531], ArmstrongGOS22 [19], OujanaAYB22 [399], AbreuN22 [142], ZhangBB22 [549], ZhangJZL22 [548]... (Total: 211) | EfthymiouY23 [161], ShaikhK23 [451], abs-2305-19888 [241], HeinzNVH22 [240], BourreauGGLT22 [105], LuoB22 [346], HanenKP21 [225], Lemos21 [315], Mercier-AubinGQ20 [362], MokhtarzadehTNF20 [364], Tom19 [487], EscobetPQPRA19 [165], GurEA19 [560], PourDERB18 [416], CappartS17 [114], NattafAL17 [380], ZarandiKS16 [544], Madi-WambaB16 [347], TranWDRFOVB16 [499], LetortCB15 [318], Derrien15 [151], ZhouGL15 [555], PraletLJ15 [419], BonfiettiLBM14 [96], BonfiettiLM14 [98], ThiruvadyWGS14 [484], LombardiM12 [337], KovacsK11 [294], Rodriguez07 [430]... (Total: 44) | PovedaAA23 [417], CampeauG22 [113], PohlAK22 [413], KlankeBYE21 [283], HubnerGSV21 [260], AntuoriHHEN21 [15], BenderWS21 [73], WessenCS20 [529], AntuoriHHEN20 [14], QinDCS20 [423], Polo-MejiaALB20 [414], FrimodigS19 [180], CauwelaertLS18 [122], TangLWSK18 [473], HoYCLLC18 [247], BaptisteB18 [35], ShinBBHO18 [454], TranVNB17 [497], HechingH16 [233], NovaraNH16 [387], BurtLPS15 [111], WangMD15 [526], LimBTBB15 [323], BartakV15 [48], LombardiBM15 [331], MelgarejoLS15 [8], BessiereHMQW14 [81], DerrienPZ14 [153], KameugneFSN14 [275]... (Total: 73)              |

Table 10: Works for Concepts of Type Concepts

| Type     | Keyword                | High  | Medium   | Low   |
|----------|------------------------|---|--|---|
| Concepts | job-shop               | abs-2402-00459 [383], PrataAN23 [420], abs-2306-05747 [476], Mehdizadeh-Somarin23 [357], KimCMLLP23 [282], CzerniachowskaWZ23 [136], JuvinHHL23 [268], Bit-Monnot23 [84], NaderiRR23 [378], AbreuNP23 [143], YuraszeckMCCR23 [543], TasselGS23 [475], MullerMKP22 [372], Teppan22 [478], OujanaAYB22 [399], ZhangBB22 [549], abs-2211-14492 [466], YuraszeckMPV22 [542], LiFJZLL22 [319], GeitzGSSW22 [196], ColT22 [134], Astrand21 [25], HamPK21 [223], KovacsTKSG21 [297], abs-2102-08778 [132], AbreuAPNM21 [141], FanXG21 [171], ZhangYW21 [550], MengZRZL20 [360]... (Total: 102)                     | IsikYA23 [262], EfthymiouY23 [161], AlfieriGPS23 [11], NaderiBZ22 [377], TouatBT22 [490], YunusogluY22 [540], AbreuN22 [142], LuoB22 [346], QinWSLS21 [422], ArmstrongGOS21 [18], Astrand0F21 [26], KoehlerBFFHPSSS21 [285], Godet21a [202], GroleazNS20 [216], MejiaY20 [358], SacramentoSP20 [433], EscobetPQPRA19 [165], WikarekS19 [530], GogkurHO18 [205], MossigeGSMC17 [369], CappartS17 [114], Derrien15 [151], BonfiettiLM14 [98], GaySS14 [190], BonfiettiLBM14 [96], BajestaniB13 [32], LombardiM12 [337], Lombardi10 [330], AronssonBK09 [20]... (Total: 43) | ShaikhK23 [451], YuraszeckMC23 [541], PovedaAA23 [417], LacknerMMWW23 [310], JuvinHL23 [269], HanenKP21 [225], KlankeBYE21 [283], AntuoriHHEN21 [15], Lemos21 [315], BenediktMH20 [75], WessenCS20 [529], AntuoriHHEN20 [14], Mercier-AubinGQ20 [362], WallaceY20 [523], Tom19 [487], GurEA19 [560], FrimodigS19 [180], BogaerdtW19 [504], abs-1902-09244 [228], ParkUJR19 [405], BenediktSMVH18 [76], Ham18 [222], CauwelaertLS18 [122], TranWDRFOVB16 [499], TranDRFWOVB16 [494], LuoVLBM16 [345], ZarandiKS16 [544], PraletLJ15 [419], LimBTBB15 [323]... (Total: 81)        |
| Concepts | lateness               | FahimiOQ18 [168], Dejemeppe16 [146], KoschB14 [289], Malapert11 [350], BartakSR10 [47], Geske05 [198], ArtiguesR00 [23]   | PrataAN23 [420], PohlAK22 [413], ZarandiASC20 [545], ZhangW18 [551], AkkerDH07 [503], Sadykov04 [434], BlazewiczLK83 [86]  | LacknerMMWW23 [310], YunusogluY22 [540], NaderiBZ22 [377], ZhangBB22 [549], GeitzGSSW22 [196], ColT22 [134], KoehlerBFFHPSSS21 [285], HanenKP21 [225], QinWSLS21 [422], LacknerMMWW21 [309], Godet21a [202], Lunardi20 [344], Novas19 [388], ParkUJR19 [405], Tesch18 [482], BartakV15 [48], EdisO11 [160], NovasH10 [389], SadykovW06 [435], Bartak02 [43]   |
| Concepts | lazy clause generation | KreterSS17 [299], KreterSS15 [298], Siala15a [456], SchuttFS13 [441], SchuttFSW13 [445], KelarevaTK13 [277], SchuttFS13a [440], SchuttFSW11 [444], abs-1009-0347 [443], OhrimenkoSC09 [395], SchuttFSW09 [442]  | PovedaAA23 [417], Bit-Monnot23 [84], BoudreaultSLQ22 [104], GeitzGSSW22 [196], OuelletQ22 [398], FahimiOQ18 [168], SchuttS16 [447], SzerediS16 [470], SialaAH15 [457], BofillEGPSV14 [91], GuSS13 [218], SchuttCSW12 [439]   | WangB23 [525], TardivoDFMP23 [474], KameugneFND23 [273], FetgoD22 [174], GeibingerMM21 [195], Godet21a [202], HillTV21 [246], GodetLHS20 [203], WallaceY20 [523], Mercier-AubinGQ20 [362], YangSS19 [537], BaptisteB18 [35], GoldwaserS18 [207], YoungFS17 [539], BofillCSV17 [90], GoldwaserS17 [206], PesantRR15 [409], GuSW12 [219], LombardiM12 [337], GrimesH11 [211], SchuttW10 [448], Lombardi10 [330]   |
| Concepts | machine                | abs-2402-00459 [383], PrataAN23 [420], IsikYA23 [262], CzerniachowskaWZ23 [136], YuraszeckMCCR23 [543], AbreuNP23 [143], NaderiRR23 [378], TasselGS23 [475], Mehdizadeh-Somarin23 [357], AalianPG23 [1], JuvinHL23 [269], PerezGSL23 [407], JuvinHHL23 [268], abs-2312-13682 [408], LacknerMMWW23 [310], EfthymiouY23 [161], abs-2306-05747 [476], AlfieriGPS23 [11], YuraszeckMC23 [541], abs-2305-19888 [241], KimCMLLP23 [282], LiFJZLL22 [319], ArmstrongGOS22 [19], JungblutK22 [267], abs-2211-14492 [466], GeitzGSSW22 [196], YuraszeckMPV22 [542], ZhangJZL22 [548], AbreuN22 [142]... (Total: 197) | Bit-Monnot23 [84], AkramNHRSA23 [9], GurPAE23 [220], LuoB22 [346], HillTV21 [246], KlankeBYE21 [283], AbohashimaEG21 [2], Lemos21 [315], AntuoriHHEN20 [14], Polo-MejiaALB20 [414], BehrensLM19 [65], GoldwaserS18 [207], BaptisteB18 [35], HeOGLW18 [229], Ham18 [222], ShinBBHO18 [454], MusliuSS18 [376], FahimiOQ18 [168], GoldwaserS17 [206], KreterSS17 [299], CohenHB17 [131], Pralet17 [418], BridiLBBM16 [108], SchuttS16 [447], CauwelaertDMS16 [121], ZarandiKS16 [544], TranWDRFOVB16 [499], SialaAH15 [457], DejemeppeCS15 [147]... (Total: 57)             | KameugneFND23 [273], MontemanniD23 [368], ShaikhK23 [451], BoudreaultSLQ22 [104], PopovicCGNC22 [415], SubulanC22 [465], PohlAK22 [413], GeibingerMM21 [195], WallaceY20 [523], WangB20 [524], BarzegaranZP20 [50], Mercier-AubinGQ20 [362], YangSS19 [537], BadicaBIL19 [30], NishikawaSTT19 [386], Tom19 [487], YounespourAKE19 [538], HoYCLLC18 [247], PourDERB18 [416], Laborie18a [307], CauwelaertLS18 [122], BofillCSV17 [90], CappartS17 [114], TranVNB17 [497], TranVNB17a [498], KletzanderM17 [284], YoungFS17 [539], LiuCGM17 [328], LimHTB16 [322]... (Total: 109) |
| Concepts | make to order          |   |  | OujanaAYB22 [399], DavenportKRSH07 [140], Simonis07 [461]   |
| Concepts | make to stock          |   |  |   |



Table 10: Works for Concepts of Type Concepts

| Type     | Keyword     | High  | Medium   | Low  |
|----------|-------------|---|--|--|
| Concepts | make-span   | PrataAN23 [420], JuvinHL23 [269], AbreuNP23 [143], EfthymiouY23 [161], PovedaAA23 [417], AlfieriGPS23 [11], abs-2305-19888 [241], NaderiRR23 [378], TasselGS23 [475], Bit-Monnot23 [84], abs-2306-05747 [476], AalianPG23 [1], CzerniachowskaWZ23 [136], LacknerMMWW23 [310], JuvinHHL23 [268], YuraszeckMC23 [541], IsikYA23 [262], Mehdizadeh-Somarin23 [357], HeinzNVH22 [240], AbreuN22 [142], GeitzGSSW22 [196], BoudreaultSLQ22 [104], YunusogluY22 [540], SubulanC22 [465], ArmstrongGOS22 [19], ZhangBB22 [549], TouatBT22 [490], ColT22 [134], FarsiTM22 [172]... (Total: 153) | YuraszeckMCCR23 [543], abs-2312-13682 [408], PerezGSL23 [407], KameugneFND23 [273], MullerMKP22 [372], SvancaraB22 [469], OujanaAYB22 [399], ZhangJZL22 [548], abs-2211-14492 [466], YuraszeckMPV22 [542], LiFJZLL22 [319], PandeyS21a [401], FanXG21 [171], QinDCS20 [423], AstrandJZ18 [27], KreterSS17 [299], YoungFS17 [539], BonfiettiZLM16 [100], GingrasQ16 [200], SialaAH15 [457], DejemeppeCS15 [147], GayHL15 [187], BajestaniB15 [33], BonfiettiLBM14 [96], ThiruvadyWGS14 [484], KameugneFSN14 [275], GuSS13 [218], LombardiM12 [337], BillautHL12 [83]... (Total: 46) | KimCMLLP23 [282], TardivoDFMP23 [474], Teppan22 [478], PopovicCGNC22 [415], CampeauG22 [113], JungblutK22 [267], FetgoD22 [174], NaderiBZ22 [377], HanenKP21 [225], KoehlerBFFHPSSS21 [285], HubnerGSV21 [260], Mercier-AubinGQ20 [362], TangB20 [472], NattaFM20 [381], SacramentoSP20 [433], NishikawaSTT19 [386], MurinR19 [373], abs-1911-04766 [193], BadicaBIL19 [30], Tom19 [487], GeibingerMM19 [194], NishikawaSTT18 [384], BorghesiBLMB18 [102], ArbaouiY18 [17], Ham18 [222], NishikawaSTT18a [385], OuelletQ18 [397], TranPZLDB18 [495], KameugneFGOQ18 [272]... (Total: 88)   |
| Concepts | manpower    | NovaraNH16 [387]  | LaborieRSV18 [308]   | BourreauGGLT22 [105], BadicaBI20 [29], MokhtarzadehTNF20 [364], WikarekS19 [530], BaptisteB18 [35], MusliuSS18 [376], SchuttS16 [447], HechingH16 [233], GayHS15a [189], GaySS14 [190], LombardiM12 [337], Menana11 [359], Vilim11 [515], NovasH10 [389], NuijtenP98 [393], SimonisC95 [462], Puget95 [421], abs-2402-00459 [383], Mehdizadeh-Somarin23 [357], SquillaciPR23 [464], AbreuAPNM21 [141], ZhangYW21 [550], MejiaY20 [358], WessenCS20 [529], WikarekS19 [530], BadicaBIL19 [30], ZhangW18 [551], HookerH18 [257], LimBTBB15 [323], KoschB14 [289], BartakS11 [46], GomesHS06 [209], AbrilSB05 [4], Beck99 [51], BeckF98 [56], Wallace96 [522] |
| Concepts | multi-agent | SvancaraB22 [469], ZarandiASC20 [545], BehrensLM19 [65], HeOGLW18 [229], HoeveGSL07 [506]   | Lemos21 [315], MokhtarzadehTNF20 [364], abs-1901-07914 [66], TranVNB17 [497], LimHTB16 [322], BartakSR10 [47], BocewiczBB09 [89]   | ColT22 [134], TouatBT22 [490], FanXG21 [171], Bedhief21 [63], Lunardi20 [344], MengZRZL20 [360], ParkUJR19 [405], TerekhovTDB14 [480], MonetteDD07 [365], BeckW07 [62], ArtiguesR00 [23], BlazewiczLK83 [86]   |
| Concepts | no preempt  |   |  |  |
| Concepts | open-shop   | PrataAN23 [420], Bit-Monnot23 [84], AbreuNP23 [143], NaderiRR23 [378], YuraszeckMPV22 [542], AbreuN22 [142], AbreuAPNM21 [141], ZarandiASC20 [545], MejiaY20 [358], Lunardi20 [344], FahimiOQ18 [168], Siala15a [456], Malapert11 [350], GrimesHM09 [213], OhrimenkoSC09 [395], MonetteDD07 [365], LorigeonBB02 [341], FocacciLN00 [175]  | Godet21a [202], Astrand21 [25], SacramentoSP20 [433], MengZRZL20 [360], Dejemeppe16 [146], GrimesH10 [210], Vilim05 [512], Demasse03 [149], BlazewiczLK83 [86]   | YuraszeckMCCR23 [543], YuraszeckMC23 [541], KimCMLLP23 [282], ShaikhK23 [451], NaderiBZ22 [377], OujanaAYB22 [399], ColT22 [134], AstrandOF21 [26], abs-2102-08778 [132], AstrandJZ20 [28], ParkUJR19 [405], HookerH18 [257], SialaAH15 [457], Derrien15 [151], BonfiettiLM14 [98], AlesioNBG14 [154], BillautHL12 [83], SchuttFSW11 [444], GrimesH11 [211], BartakSR10 [47], SchuttFSW09 [442], ThiruvadyBME09 [483], VilimBC05 [517], ArtiouchineB05 [24], HentenryckM04 [243], VilimBC04 [516], Vilim03 [510], ElkhyariGJ02a [163], VerfaillieL01 [508], SourdN00 [463]   |

Table 10: Works for Concepts of Type Concepts

| Type     | Keyword           | High   | Medium   | Low  |
|----------|-------------------|--|--|--|
| Concepts | order             | abs-2402-00459 [383], PrataAN23 [420], EfthymiouY23 [161], AbreuNP23 [143], AlfieriGPS23 [11], abs-2312-13682 [408], CzerniachowskaWZ23 [136], TasselGS23 [475], AalianPG23 [1], abs-2306-05747 [476], Bit-Monnot23 [84], JuvinHL23 [269], WangB23 [525], KameugneFND23 [273], LacknerMMWW23 [310], PerezGSL23 [407], JuvinHHL23 [268], SquillaciPR23 [464], IsikYA23 [262], YuraszeckMCCR23 [543], KimCMLLP23 [282], PovedaAA23 [417], PopovicCGNC22 [415], BoudreaultSLQ22 [104], LuoB22 [346], CampeauG22 [113], YunusogluY22 [540], AbreuN22 [142], BourreauGGLT22 [105]... (Total: 332) | MontemanniD23a [367], ShaikhK23 [451], abs-2305-19888 [241], NaderiRR23 [378], TardivoDFMP23 [474], YuraszeckMC23 [541], GurPAE23 [220], OuelletQ22 [398], SvancaraB22 [469], ZhangBB22 [549], ArmstrongGOS22 [19], WinterMMW22 [531], HeinzNVH22 [240], JungblutK22 [267], TouatBT22 [490], BenderWS21 [73], GeibingerMM21 [195], HillTV21 [246], abs-2102-08778 [132], QinDCS20 [423], WallaceY20 [523], ZouZ20 [559], TangB20 [472], ColT19 [133], BogaerdtW19 [504], FrohnerTR19 [181], YounespourAKE19 [538], DemirovicS18 [150], ShinBBHO18 [454]... (Total: 92) | MontemanniD23 [368], AkramNHRSA23 [9], Mehdizadeh-Somarin23 [357], ZhangJZL22 [548], AbobashimaEG21 [2], ZhangYW21 [550], MokhtarzadehTNF20 [364], KucukY19 [304], abs-1902-01193 [10], GalleguillosKSB19 [183], ArbaouiY18 [17], BenediktSMVH18 [76], He0GLW18 [229], TranVNB17a [498], Hooker17 [254], Bonfietti16 [93], SzerediS16 [470], HechingH16 [233], BridiLBBM16 [108], Derrien15 [151], GayHS15a [189], ThiruvadyWGS14 [484], DoulabiRP14 [158], GuSS13 [218], LombardiM13 [338], SchuttFS13 [441], BonfiettiLM13 [97], HeinzKB13 [236], HeinzB12 [235]... (Total: 55)  |
| Concepts | precedence        | abs-2402-00459 [383], PovedaAA23 [417], YuraszeckMCCR23 [543], NaderiRR23 [378], IsikYA23 [262], AlfieriGPS23 [11], JuvinHHL23 [268], FetgoD22 [174], PohlAK22 [413], CampeauG22 [113], YunusogluY22 [540], ZhangBB22 [549], BoudreaultSLQ22 [104], Godet21a [202], GeibingerMM21 [195], HamPK21 [223], HanenKP21 [225], Astrand0F21 [26], Astrand21 [25], HillTV21 [246], KoehlerBFFHPSSS21 [285], FanXG21 [171], HubnerGSV21 [260], ArmstrongGOS21 [18], ZhangYW21 [550], GroleazNS20 [216], SacramentoSP20 [433], Polo-MejiaALB20 [414], AstrandJZ20 [28]... (Total: 142)                 | Bit-Monnot23 [84], KameugneFND23 [273], TardivoDFMP23 [474], OujanaAYB22 [399], SubulanC22 [465], ColT22 [134], VlkHT21 [520], AntuoriHHEN21 [15], WessenCS20 [529], MokhtarzadehTNF20 [364], QinDCS20 [423], GeibingerMM19 [194], Novas19 [388], abs-1911-04766 [193], ColT19 [133], BogaerdtW19 [504], MurinR19 [373], Ham18 [222], KameugneFGOQ18 [272], Madi-WambaLOBM17 [348], MossigeGSMC17 [369], Madi-WambaB16 [347], GayHLS15 [187], VilimLS15 [518], BurtLPS15 [111], LombardiBM15 [331], BartakV15 [48], WangMD15 [526], BonfiettiLM14 [98]... (Total: 61)  | PrataAN23 [420], KimCMLLP23 [282], JuvinHL23 [269], TasselGS23 [475], abs-2305-19888 [241], Mehdizadeh-Somarin23 [357], abs-2306-05747 [476], YuraszeckMC23 [541], MullerMKP22 [372], WinterMMW22 [531], abs-2211-14492 [466], HeinzNVH22 [240], BourreauGGLT22 [105], ZhangJZL22 [548], GeitzGSSW22 [196], TouatBT22 [490], KovacsTKSG21 [297], PandeyS21a [401], AbreuAPNM21 [141], Lemos21 [315], TangB20 [472], GroleazNS20a [215], BaptisteB18 [35], He0GLW18 [229], OuelletQ18 [397], GokgurHO18 [205], DemirovicS18 [150], TranVNB17 [497], CappartS17 [114]... (Total: 91) |
| Concepts | preempt           | JuvinHHL23 [268], PovedaAA23 [417], SubulanC22 [465], Godet21a [202], HanenKP21 [225], Polo-MejiaALB20 [414], ZarandiASC20 [545], BaptisteB18 [35], GokgurHO18 [205], FahimiOQ18 [168], Dejemeppe16 [146], ZarandiKS16 [544], EvenSH15 [166], EvenSH15a [167], AlesioNBG14 [154], LombardiM12 [337], BeldiceanuCDP11 [69], KovacsB11 [292], BartakSR10 [47], Lombardi10 [330], KovacsB07 [290], MonetteDD07 [365], Wolf03 [532], BaptisteP00 [38], PapaB98 [404], PembertonG98 [406], BaptisteP97 [37], BlazewiczLK83 [86]   | PrataAN23 [420], abs-2305-19888 [241], OuelletQ22 [398], FetgoD22 [174], HeinzNVH22 [240], Astrand21 [25], SacramentoSP20 [433], Mercier-AubinGQ20 [362], Lunardi20 [344], LunardiBLRV20 [343], YoungFS17 [539], NattafAL15 [379], SimoninAHL15 [459], TerekhovTDB14 [480], OzturkTHO13 [400], BajestaniB13 [32], SimoninAHL12 [458], SchuttFSW11 [444], Malapert11 [350], SchuttFSW09 [442], Laborie09 [306], KovacsB08 [291], ArtiouchineB05 [24], SourdN00 [463], Beck99 [51], NuijtenP98 [393]   | NaderiRR23 [378], TasselGS23 [475], AalianPG23 [1], TardivoDFMP23 [474], YuraszeckMC23 [541], YuraszeckMCCR23 [543], KameugneFND23 [273], AkramNHRSA23 [9], AbreuNP23 [143], abs-2306-05747 [476], IsikYA23 [262], Mehdizadeh-Somarin23 [357], AbreuN22 [142], ZhangBB22 [549], TouatBT22 [490], Teppan22 [478], GeitzGSSW22 [196], BoudreaultSLQ22 [104], ColT22 [134], MullerMKP22 [372], YunusogluY22 [540], OujanaAYB22 [399], JungblutK22 [267], Bedhief21 [63], BenderWS21 [73], FanXG21 [171], QinWSLS21 [422], KovacsTKSG21 [297], HubnerGSV21 [260]... (Total: 126)       |
| Concepts | producer/consumer | SchuttS16 [447], PoderBS04 [412], Kumar03 [303], Beck99 [51], SimonisC95 [462]   | HermenierDL11 [245], BeldiceanuC02 [68]  | GeitzGSSW22 [196], KlankeBYE21 [283], CappartTSR18 [115], LombardiM12a [336], PoderB08 [411], Simonis07 [461], Timpe02 [486], Simonis95 [460]  |

Table 10: Works for Concepts of Type Concepts

| Type     | Keyword       | High  | Medium   | Low   |
|----------|---------------|---|--|---|
| Concepts | re-scheduling | Astrand21 [25], HamPK21 [223], Lemos21 [315], BarzegaranZP20 [50], ZarandiASC20 [545], ZhangW18 [551], Madi-WambaLOBM17 [348], CappartS17 [114], BartakV15 [48], GrimesIOS14 [214], TranTDB13 [496], BajestaniB13 [32], RendlPHPR12 [426], LombardiM12 [337], IfrimOS12 [261], NovasH10 [389], BidotVLB09 [82], Laborie03 [305], MartinPY01 [355], ArtiguesR00 [23]   | Mehdizadeh-Somarin23 [357], KovacsTKSG21 [297], AstrandJZ20 [28], TranPZLDB18 [495], HoYCLLC18 [247], LimHTB16 [322], LimBTBB15 [323], CobanH10 [130], Lombardi10 [330], Acuna-AgostMFG09 [5], Beck99 [51]   | PrataAN23 [420], abs-2312-13682 [408], abs-2306-05747 [476], EfthymiouY23 [161], ShaikhK23 [451], abs-2305-19888 [241], TasselGS23 [475], GurPAE23 [220], NaderiRR23 [378], PerezGSL23 [407], BourreauGGLT22 [105], FarsiTM22 [172], YunusogluY22 [540], HeinzNVH22 [240], ArmstrongGOS22 [19], LuoB22 [346], PohlAK22 [413], YuraszeckMPV22 [542], KlankeBYE21 [283], PandeyS21a [401], ZhangYW21 [550], Lunardi20 [344], BenediktMH20 [75], MejiaY20 [358], LunardiBLRV20 [343], NishikawaSTT19 [386], YounespourAKE19 [538], GalleguillosKSB19 [183], Tom19 [487]... (Total: 75) |
| Concepts | release-date  | WinterMMW22 [531], YunusogluY22 [540], YuraszeckMPV22 [542], HanenKP21 [225], Bedhief21 [63], Polo-MejiaALB20 [414], EscobetPQPRA19 [165], Tesch18 [482], KameugneFSN14 [275], LimtanyakulS12 [325], SerraNM12 [450], KameugneFSN11 [274], KovacsB11 [292], LombardiM10a [334], BartakSR10 [47], Lombardi10 [330], abs-0907-0939 [410], KovacsB07 [290], AkkerDH07 [503], SadykovW06 [435], ArtiouchineB05 [24], Hooker05 [250], SchuttWS05 [449], Hooker04 [249], Zhou97 [554], Zhou96 [553], Colombani96 [135]  | PrataAN23 [420], LacknerMMWW23 [310], LacknerMMWW21 [309], Godet21a [202], AntuoriHHEN20 [14], GroleazNS20 [216], ZarandiASC20 [545], GroleazNS20a [215], abs-1911-04766 [193], GeibingerMM19 [194], Dejemeppe16 [146], HeinzSB13 [239], KelbelH11 [278], Laborie09 [306], Limtanyakul07 [324], Simonis07 [461], Hooker06 [252], Hooker05a [251], WuBB05 [535], Sadykov04 [434], SourdN00 [463], Beck99 [51], BeckF98 [56]   | PovedaAA23 [417], IsikYA23 [262], YuraszeckMC23 [541], TouatBT22 [490], PohlAK22 [413], AntuoriHHEN21 [15], GeibingerMM21 [195], ZhangYW21 [550], HillTV21 [246], AbreuAPNM21 [141], KovacsTKSG21 [297], Astrand21 [25], GodetLHS20 [203], Lunardi20 [344], MejiaY20 [358], Novas19 [388], abs-1902-09244 [228], LaborieRSV18 [308], Laborie18a [307], GokgurHO18 [205], HookerH18 [257], NattafAL17 [380], NattafAL15 [379], DejemeppeCS15 [147], KoschB14 [289], TerekhovTDB14 [480], HeinzKB13 [236], SchuttFSW13 [445], BillautHL12 [83]... (Total: 58)                         |
| Concepts | resource      | PrataAN23 [420], abs-2402-00459 [383], JuvinHHL23 [268], KameugneFND23 [273], PovedaAA23 [417], YuraszeckMCCR23 [543], abs-2305-19888 [241], CzerniachowskaWZ23 [136], ShaikhK23 [451], AlfieriGPS23 [11], NaderiRR23 [378], AalianPG23 [1], WangB23 [525], TardivoDFMP23 [474], GurPAE23 [220], NaderiBZ22 [377], BourreauGGLT22 [105], HeinzNVH22 [240], ZhangBB22 [549], GeitzGSSW22 [196], LuoB22 [346], AbreuN22 [142], BoudreaaultSLQ22 [104], TouatBT22 [490], YunusogluY22 [540], CampeauG22 [113], SubulanC22 [465], OuelletQ22 [398], FarsiTM22 [172]... (Total: 324)                               | Caballero23 [112], PerezGSL23 [407], abs-2312-13682 [408], IsikYA23 [262], abs-2306-05747 [476], TasselGS23 [475], Bit-Monnot23 [84], AbreuNP23 [143], abs-2211-14492 [466], PohlAK22 [413], YuraszeckMPV22 [542], MullerMKP22 [372], WinterMMW22 [531], SvancaraB22 [469], AstrandOF21 [26], KlankeBYE21 [283], MokhtarzadehTNF20 [364], TangB20 [472], LunardiBLRV20 [343], WallaceY20 [523], FrimodigS19 [180], abs-1902-01193 [10], ParkUJR19 [405], HoYCLLC18 [247], GedikKEK18 [191], Ham18 [222], BenediktSMVH18 [76], GelainPRVW17 [197], GoldwasserS17 [206]... (Total: 56) | MontemanniD23 [368], AkramNHRSA23 [9], SquillaciPR23 [464], Teppan22 [478], PopovicCGNC22 [415], ArmstrongGOS22 [19], JungblutK22 [267], ZhangJZL22 [548], AntuoriHHEN21 [15], HamPK21 [223], AbreuAPNM21 [141], AbohashimaEG21 [2], KoehlerBFFHPSSS21 [285], ArmstrongGOS21 [18], FanXG21 [171], abs-2102-08778 [132], MejiaY20 [358], BarzegaranZP20 [50], NattafM20 [381], BadicaBIL19 [30], KucukY19 [304], ColT19 [133], AstrandJZ18 [27], ZhangW18 [551], KletzanderM17 [284], TranVNB17a [498], Hooker17 [254], ZarandiKS16 [544], BajestaniB15 [33]... (Total: 59)          |
| Concepts | scheduling    | abs-2402-00459 [383], PrataAN23 [420], AbreuNP23 [143], TasselGS23 [475], Bit-Monnot23 [84], IsikYA23 [262], AalianPG23 [1], abs-2305-19888 [241], abs-2312-13682 [408], PerezGSL23 [407], abs-2306-05747 [476], JuvinHHL23 [268], TardivoDFMP23 [474], YuraszeckMC23 [541], Mehdizadeh-Somarin23 [357], MontemanniD23 [368], KimCMLLP23 [282], AkramNHRSA23 [9], ShaikhK23 [451], KameugneFND23 [273], LacknerMMWW23 [310], GurPAE23 [220], PovedaAA23 [417], EfthymiouY23 [161], AlfieriGPS23 [11], SquillaciPR23 [464], Caballero23 [112], CzerniachowskaWZ23 [136], YuraszeckMCCR23 [543]... (Total: 466) | HebrardALLCMR22 [230], GayHS15 [188], Kameugne15 [271], BessiereHMQW14 [81], HoundjiSWD14 [259], LetortCB13 [317], LetortBC12 [316], ChapadosJR11 [125], ClercqPBJ11 [129], Baptiste09 [34], Acuna-AgostMFG09 [5], abs-0907-0939 [410], GomesHS06 [209], MoffittPP05 [363], WuBB05 [535], DilkinaDH05 [155], HebrardTW05 [232], Vilim03 [510], ValleMGT03 [502], Vilim02 [509], HookerY02 [258], RodriguezDG02 [429], CestaOS98 [124], FrostD98 [182], Touraivane95 [491]  | Hooker17 [254], RossiTHP07 [431], AbrilSB05 [4], VanczaM01 [507]  |

Table 10: Works for Concepts of Type Concepts

| Type     | Keyword        | High  | Medium   | Low  |
|----------|----------------|---|--|--|
| Concepts | sequence setup | dependent<br>GedikKEK18 [191], TranB12 [493], FocacciLN00 [175]   | IsikYA23 [262], YuraszeckMPV22 [542], GeitzGSSW22 [196], MengZRZL20 [360], ZarandiASC20 [545], RiahiNS018 [427], Dejemeppe16 [146], LombardiM12 [337], Simonis07 [461], ArtiguesBF04 [21]  | PrataAN23 [420], NaderiRR23 [378], abs-2305-19888 [241], YunusogluY22 [540], PohlAK22 [413], HeinzNVH22 [240], OujanaAYB22 [399], Bedhief21 [63], HamPK21 [223], ArmstrongGOS21 [18], Astrand21 [25], Mercier-AubinGQ20 [362], MejiaY20 [358], MalapertN19 [351], Novas19 [388], KucukY19 [304], ArbaouiY18 [17], LaborieRSV18 [308], Ham18 [222], FahimiOQ18 [168], HookerH18 [257], Pralet17 [418], CauwelaertDMS16 [121], NovaraNH16 [387], DejemeppeCS15 [147], BajestaniB15 [33], Siala15a [456], KovacsK11 [294], GrimesH10 [210]... (Total: 35)                                       |
| Concepts | setup-time     | PrataAN23 [420], LacknerMMWW23 [310], IsikYA23 [262], abs-2305-19888 [241], AbreuNP23 [143], NaderiRR23 [378], YuraszeckMPV22 [542], PohlAK22 [413], GeitzGSSW22 [196], NaderiBZ22 [377], WinterMMW22 [531], HeinzNVH22 [240], AbreuN22 [142], OujanaAYB22 [399], YunusogluY22 [540], ColT22 [134], LacknerMMWW21 [309], Astrand21 [25], Lunardi20 [344], NattafM20 [381], MejiaY20 [358], GroleazNS20 [216], Mercier-AubinGQ20 [362], QinDCS20 [423], LunardiBLRV20 [343], ZarandiASC20 [545], GroleazNS20a [215], MengZRZL20 [360], Novas19 [388]... (Total: 48)                | AlfieriGPS23 [11], CzerniachowskaWZ23 [136], KimCMLLP23 [282], LiFJZLL22 [319], Bedhief21 [63], AbreuAPNM21 [141], ArmstrongGOS21 [18], FanXG21 [171], AstrandJZ20 [28], LaborieRSV18 [308], HookerH18 [257], NovaraNH16 [387], GaySS14 [190], OzturkTHO13 [400], KelarevaTK13 [277], Malapert11 [350], ThiruvadyBME09 [483], BeniniBGM06 [77], Timpe02 [486], Vilim02 [509]   | YuraszeckMCCR23 [543], JuvinHHL23 [268], JuvinHL23 [269], Mehdizadeh-Somarin23 [357], EfthymiouY23 [161], abs-2211-14492 [466], ZhangJZL22 [548], MullerMKP22 [372], Teppan22 [478], HamPK21 [223], ZhangYW21 [550], AbohashimaEG21 [2], BenderWS21 [73], GodetLHS20 [203], MokhtarzadehTNF20 [364], Polo-MejiaALB20 [414], BehrensLM19 [65], abs-1902-09244 [228], KucukY19 [304], WikarekS19 [530], GokgurHO18 [205], CappartTSR18 [115], FahimiOQ18 [168], TranVNB17a [498], GilesH16 [199], ZhouGL15 [555], BajestaniB15 [33], MelgarejoLS15 [8], GoelSHFS15 [204]... (Total: 56)        |
| Concepts | stock level    | LopesCSM10 [339], SimonisC95 [462]  | RossiTHP07 [431], Timpe02 [486]  | KhemmoudjPB06 [281], Beck99 [51]   |
| Concepts | tardiness      | PrataAN23 [420], IsikYA23 [262], AlfieriGPS23 [11], KimCMLLP23 [282], LacknerMMWW23 [310], NaderiRR23 [378], WinterMMW22 [531], TouatBT22 [490], YunusogluY22 [540], AbreuN22 [142], OujanaAYB22 [399], NaderiBZ22 [377], PohlAK22 [413], abs-2211-14492 [466], FanXG21 [171], AntuoriHHEN21 [15], LacknerMMWW21 [309], ZarandiASC20 [545], GroleazNS20a [215], Mercier-AubinGQ20 [362], AntuoriHHEN20 [14], MengZRZL20 [360], TangB20 [472], abs-1902-09244 [228], ParkUJR19 [405], BogaerdtW19 [504], LaborieRSV18 [308], NovaraNH16 [387], Dejemeppe16 [146]... (Total: 50)    | abs-2402-00459 [383], AbreuNP23 [143], SubulanC22 [465], FarsiTM22 [172], ColT22 [134], KovacsTKSG21 [297], AbreuAPNM21 [141], GroleazNS20 [216], Lunardi20 [344], GedikKEK18 [191], GokgurHO18 [205], Hooker17 [254], ThiruvadyWGS14 [484], TerekhovTDB14 [480], BajestaniB13 [32], Malapert11 [350], NovasH10 [389], BartakSR10 [47], Beck06 [52], QuirogaZH05 [425], Hooker05 [250], GodardLN05 [201], BeckPS03 [58]  | Mehdizadeh-Somarin23 [357], JuvinHL23 [269], abs-2306-05747 [476], TasselGS23 [475], LiFJZLL22 [319], ZhangJZL22 [548], VlkHT21 [520], HanenKP21 [225], KoehlerBFFHPSSS21 [285], HamPK21 [223], GeibingerMM21 [195], Astrand21 [25], HubnerGSV21 [260], QinWSLS21 [422], Bedhief21 [63], QinDCS20 [423], Polo-MejiaALB20 [414], MejiaY20 [358], LunardiBLRV20 [343], Tom19 [487], Novas19 [388], RiahiNS018 [427], HookerH18 [257], ZhangW18 [551], DejemeppeCS15 [147], MelgarejoLS15 [8], ZhouGL15 [555], BurtLPS15 [111], LimBTBB15 [323]... (Total: 57)                                  |
| Concepts | task           | PrataAN23 [420], abs-2402-00459 [383], JuvinHL23 [269], CzerniachowskaWZ23 [136], JuvinHHL23 [268], WangB23 [525], YuraszeckMCCR23 [543], PovedaAA23 [417], abs-2305-19888 [241], KameugneFND23 [273], AkramNHRSA23 [9], LiFJZLL22 [319], CampeauG22 [113], ColT22 [134], SubulanC22 [465], OuelletQ22 [398], FetgoD22 [174], abs-2211-14492 [466], GeitzGSSW22 [196], TouatBT22 [490], HeinzNVH22 [240], JungblutK22 [267], BoudreaultSLQ22 [104], Astrand0F21 [26], HanenKP21 [225], Astrand21 [25], KoehlerBFFHPSSS21 [285], KlankeBYE21 [283], HillTV21 [246]... (Total: 211) | MontemanniD23a [367], Bit-Monnot23 [84], IsikYA23 [262], MontemanniD23 [368], LacknerMMWW23 [310], ShaikhK23 [451], SquillaciPR23 [464], YuraszeckMPV22 [542], PopovicCGNC22 [415], MullerMKP22 [372], WinterMMW22 [531], AbreuN22 [142], FarsiTM22 [172], SvancaraB22 [469], OujanaAYB22 [399], BenderWS21 [73], HubnerGSV21 [260], GeibingerMM21 [195], ZouZ20 [559], BarzegaranZP20 [50], Polo-MejiaALB20 [414], AntuoriHHEN20 [14], BoudicaBI20 [29], WallaceY20 [523], WikarekS19 [530], HookerH18 [257], DemirovicS18 [150], GoldwaserS18 [207], MusliuSS18 [376]... (Total: 53) | NaderiRR23 [378], TasselGS23 [475], EfthymiouY23 [161], PerezGSL23 [407], abs-2312-13682 [408], Mehdizadeh-Somarin23 [357], TardivoDFMP23 [474], abs-2306-05747 [476], Teppan22 [478], ZhangJZL22 [548], ZhangBB22 [549], ArmstrongGOS22 [19], ZhangYW21 [550], abs-2102-08778 [132], FanXG21 [171], AbreuAPNM21 [141], AntuoriHHEN21 [15], LacknerMMWW21 [309], HamPK21 [223], AstrandJZ20 [28], SacramentoSP20 [433], FallahiAC20 [170], BenediktMH20 [75], MengZRZL20 [360], ParkUJR19 [405], MurinR19 [373], abs-1902-09244 [228], FrimodigS19 [180], abs-1902-01193 [10]... (Total: 91) |

Table 10: Works for Concepts of Type Concepts

| Type     | Keyword                       | High   | Medium  | Low   |
|----------|-------------------------------|--|---|---|
| Concepts | temporal constraint reasoning |  |   | BartakSR10 [47], KeriK07 [279], FortinZDF05 [177]   |
| Concepts | transportation                | CzerniachowskaWZ23 [136],<br>ArmstrongGOS22 [19], PohlAK22 [413],<br>BourreauGGLT22 [105], GeitzGSSW22 [196],<br>ArmstrongGOS21 [18], Lemos21 [315],<br>QinDCS20 [423], Lunardi20 [344],<br>SacramentoSP20 [433], MurinR19 [373],<br>Ham18 [222], CappartTSR18 [115],<br>PourDERB18 [416], TangLWSK18 [473],<br>GoelSHFS15 [204], NovasH14 [391],<br>KelarevaTK13 [277], NovasH12 [390],<br>HachemiGR11 [221], LopesCSM10 [339],<br>BocewiczBB09 [89], Rodriguez07 [430],<br>ZeballosH05 [546] | NaderiRR23 [378], KimCMLLP23 [282],<br>AbreuN22 [142], SubulanC22 [465],<br>NaderiBZ22 [377], PopovicCGNC22 [415],<br>Astrand21 [25], Godet21a [202],<br>AbohashimaEG21 [2], MengZRZL20 [360],<br>MejiaY20 [358], ZarandiASC20 [545],<br>FallahiAC20 [170], LaborieRSV18 [308],<br>EvenSH15 [166], MelgarejoLS15 [8],<br>RendlPHPR12 [426], Malapert11 [350],<br>MakMS10 [349], MouraSCL08a [370],<br>MouraSCL08 [371], LimRX04 [321],<br>Mason01 [356], ArtiguesR00 [23],<br>Wallace96 [522], BlazewiczLK83 [86] | AalianPG23 [1], IsikYA23 [262], AbreuNP23 [143],<br>abs-2312-13682 [408], WangB23 [525], MontemanniD23a [367],<br>PerezGSL23 [407], AlfieriGPS23 [11], ColT22 [134],<br>BoudreaultSLQ22 [104], abs-2211-14492 [466], ZhangJZL22 [548],<br>YuraszeckMPV22 [542], LiFJZLL22 [319], YunusogluY22 [540],<br>AntuoriHHEN21 [15], Bedhief21 [63], HubnerGSV21 [260],<br>GroleazNS20a [215], WallaceY20 [523], Novas19 [388],<br>abs-1902-09244 [228], Tom19 [487], GoldwaserS18 [207],<br>HookerH18 [257], GokgurHO18 [205], ZhangW18 [551],<br>ShinBBHO18 [454], He0GLW18 [229]... (Total: 70) |

## 6.2 Concept Type Classification

Table 11: Works for Concepts of Type Classification

| Type           | Keyword   | High  | Medium  | Low   |
|----------------|---|---|---|---|
| Classification | 2BPHFSP   | TangB20 [472]   |   |   |
| Classification | BPCTOP  | KelarevaTK13 [277]  |   |   |
| Classification | Bulk Port Cargo<br>Throughput Optimi-<br>sation Problem |   |   | KelarevaTK13 [277]  |
| Classification | CECSP   | NattafAL17 [380], NattafAL15 [379]  |   |   |
| Classification | CHSP  | EfthymiouY23 [161], WallaceY20 [523]  |   |   |
| Classification | CTW   | KoehlerBFFHPSSS21 [285]   | Lombardi10 [330]  |   |
| Classification | CuSP  | KameugneFND23 [273], FetgoD22 [174],<br>Tesch18 [482], KameugneFGOQ18 [272],<br>Tesch16 [481], NattafAL15 [379],<br>Derrien15 [151], DerrienPZ14 [153],<br>KameugneFSN14 [275], KameugneFSN11 [274],<br>SchuttW10 [448], DemasseY03 [149]   | GingrasQ16 [200], OuelletQ13 [396]  | TardivoDFMP23 [474], HanenKP21 [225], DerrienP14 [152]  |
| Classification | EOSP  |   | SquillaciPR23 [464]   |   |
| Classification | Earth Observation<br>Scheduling Problem                 |   | SquillaciPR23 [464]   |   |
| Classification | FJS   | WangB23 [525], YuraszeckMCCR23 [543],<br>MullerMKP22 [372], Teppan22 [478],<br>HamPK21 [223], Lunardi20 [344],<br>LunardiBLRV20 [343], WangB20 [524],<br>ZarandiASC20 [545], MengZRZL20 [360],<br>Novas19 [388], MossigeGSMC17 [369]  | OujanaAYB22 [399], abs-1902-09244 [228],<br>ZhangW18 [551], SchuttFS13 [441]      | NaderiRR23 [378], ColT22 [134], ZhouGL15 [555]  |
| Classification | Fixed Job Scheduling                                    | WangB20 [524]   | WangB23 [525]   |   |
| Classification | GCSP  | GroleazNS20 [216]   |   |   |
| Classification | HFF   | ArmstrongGOS22 [19], OujanaAYB22 [399],<br>ArmstrongGOS21 [18], ZhouGL15 [555]  |   |   |
| Classification | JSPT  |   | MurinR19 [373]  |   |
| Classification | JSSP  | JuvinHHL23 [268], YuraszeckMC23 [541],<br>TasselGS23 [475], YuraszeckMCCR23 [543],<br>abs-2306-05747 [476], ColT22 [134],<br>YuraszeckMPV22 [542], GeitzGSSW22 [196],<br>Teppan22 [478], Godet21a [202],<br>abs-2102-08778 [132], ZarandiASC20 [545],<br>ColT19 [133], Pralet17 [418], KelbelH11 [278],<br>BidotVLB09 [82], GodardLN05 [201],<br>SourdN00 [463], PapaB98 [404],<br>NuijtenP98 [393], NuijtenA94 [392] | GalleguillosKSB19 [183], LombardiBM15 [331],<br>SialaAH15 [457], Belhadji198 [72] | EfthymiouY23 [161], Mehdizadeh-Somarin23 [357],<br>CzerniachowskaWZ23 [136], WikarekS19 [530], PraletLJ15 [419],<br>BajestaniB11 [31] |
| Classification | KRFP  | KamarainenS02 [270], SakkoutW00 [436]   |   |   |
| Classification | LSFRP   | KelarevaTK13 [277]  |   |   |
| Classification | Liner Shipping Fleet<br>Repositioning Problem           |   | KelarevaTK13 [277]  |   |
| Classification | MGAP  | Darby-DowmanLMZ97 [138]   |   |   |
| Classification | Modified Generalized<br>Assignment Problem              |   |   |   |
| Classification | OSP   | NaderiRR23 [378], LacknerMMWW23 [310],<br>Bit-Monnot23 [84], LacknerMMWW21 [309],<br>GayHLS15 [187], Siala15a [456]   | SquillaciPR23 [464], GrimesHM09 [213],<br>MonetteDD07 [365]                       | MengZRZL20 [360]  |
| Classification | OSSP  | YuraszeckMC23 [541], AbreuNP23 [143],<br>YuraszeckMPV22 [542], ColT22 [134],<br>AbreuN22 [142], AbreuAPNM21 [141],<br>MejiaY20 [358]  |   | YuraszeckMCCR23 [543], ZarandiASC20 [545]   |

Table 11: Works for Concepts of Type Classification

| Type           | Keyword  | High   | Medium  | Low  |
|----------------|--|--|---|--|
| Classification | Open Shop Scheduling Problem   | AbreuNP23 [143], AbreuN22 [142], AbreuAPNM21 [141], MejiaY20 [358], ZarandiASC20 [545]   | Malapert11 [350], LorigeonBB02 [341]  | PrataAN23 [420], Bit-Monnot23 [84], YuraszeckMCCR23 [543], NaderiRR23 [378], YuraszeckMPV22 [542], ColT22 [134], MengZRZL20 [360], SacramentoSP20 [433], HookerH18 [257], GrimesH10 [210], GrimesHM09 [213], OhrimenkoSC09 [395], MonetteDD07 [365], VerfailleL01 [508]  |
| Classification | PJSSP  |  | PapaB98 [404]   |  |
| Classification | PMSP   | NaderiRR23 [378], YunusogluY22 [540], WinterMMW22 [531], Godet21a [202], PandeyS21a [401], GodetLHS20 [203], MalapertN19 [351], GedikKEK18 [191], TranB12 [493]  | VlkHT21 [520], NattafM20 [381]  | OujanaAYB22 [399], ColT22 [134], ZarandiASC20 [545]  |
| Classification | PP-MS-MMRCPS   |  |   |  |
| Classification | PTC  | NattafM20 [381], MalapertN19 [351]   | NaderiRR23 [378]  | CzerniachowskaWZ23 [136], Teppan22 [478], Dejemeppe16 [146]  |
| Classification | Pre-emptive Job-Shop scheduling Problem                                  |  |   |  |
| Classification | RCPSP  | YuraszeckMCCR23 [543], PovedaAA23 [417], CampeauG22 [113], BoudreaultSLQ22 [104], SubulanC22 [465], FetgoD22 [174], BenderWS21 [73], GeibingerMM21 [195], HillTV21 [246], HubnerGSV21 [260], Godet21a [202], ZarandiASC20 [545], Polo-MejiaALB20 [414], GeibingerMM19 [194], abs-1902-09244 [228], abs-1911-04766 [193], LaborieRSV18 [308], TangLWSK18 [473], KameugneFGOQ18 [272], Pralet17 [418], KreterSS17 [299], YoungFS17 [539], BofillCSV17 [90], MossigeGSMC17 [369], SzerediS16 [470], SchuttS16 [447], KreterSS15 [298], VilimLS15 [518], BonfiettiLM13 [97]... (Total: 46) | TardivoDFMP23 [474], Caballero23 [112], KameugneFND23 [273], KovacsTKSG21 [297], GroleazNS20a [215], BaptisteB18 [35], Tesch18 [482], CauwelaertLS18 [122], Dejemeppe16 [146], LombardiBM15 [331], NattafAL15 [379], GayHLS15 [187], KameugneFSN14 [275], LombardiM13 [338], KameugneFSN11 [274], HeinzS11 [238], abs-1009-0347 [443], KeriK07 [279], KovacsV06 [296], HeipckeCCS00 [242], ArtiguesR00 [23] | NaderiRR23 [378], GeitzGSSW22 [196], TouatBT22 [490], HanenKP21 [225], Astrand21 [25], ZhangYW21 [550], Lemos21 [315], Mercier-AubinGQ20 [362], WikarekS19 [530], OuelletQ18 [397], HookerH18 [257], FahimiOQ18 [168], GingrasQ16 [200], BonfiettiZLM16 [100], Tesch16 [481], SialaAH15 [457], GayHS15a [189], Siala15a [456], DerrienPZ14 [153], BonfiettiLM14 [98], BonfiettiLBM14 [96], KoschB14 [289], SchuttFS13a [440], OuelletQ13 [396], SchuttFS13 [441], LetortCB13 [317], BonfiettiM12 [99], BonfiettiLBM12 [95], LombardiBMB11 [332]... (Total: 40) |
| Classification | RCPSPDC  |  |   | CampeauG22 [113], HubnerGSV21 [260]  |
| Classification | Resource-constrained Project Scheduling Problem with Discounted Cashflow |  |   |  |
| Classification | SBSFMMAL   | OzturkTHO13 [400]  |   |  |
| Classification | SCC  | KimCMLLP23 [282], WolinskiKG04 [534]   | SchuttFSW13 [445], abs-1009-0347 [443], Lombardi10 [330]  | PohlAK22 [413], BeniniLMR11 [78], SchausHMCMD11 [437]  |
| Classification | SMSDP  |  |   |  |
| Classification | Steel-making and continuous casting                                      |  |   |  |
| Classification | TCSP   | BelhadjiI98 [72]   |   | BartakSR10 [47], LombardiM10a [334], Lombardi10 [330], Demasse03 [149]   |
| Classification | TMS  | PopovicCGNC22 [415]  | BegB13 [64]   | CappartS17 [114], Siala15a [456]   |
| Classification | Temporal Constraint Satisfaction Problem                                 |  | BelhadjiI98 [72]  | BartakSR10 [47], MoffittPP05 [363]   |

Table 11: Works for Concepts of Type Classification

| Type           | Keyword          | High  | Medium  | Low  |
|----------------|------------------|---|---|--|
| Classification | parallel machine | PrataAN23 [420], abs-2305-19888 [241], IsikYA23 [262], CzerniachowskaWZ23 [136], NaderiRR23 [378], ZhangJZL22 [548], WinterMMW22 [531], HeinzNVH22 [240], OujanaAYB22 [399], YunusogluY22 [540], PandeyS21a [401], Astrand21 [25], Godet21a [202], Lunardi20 [344], GodetLHS20 [203], ZarandiASC20 [545], MengZRZL20 [360], NattafM20 [381], MalapertN19 [351], GedikKEK18 [191], ArbaouiY18 [17], GokgurHO18 [205], HebrardHJMPV16 [231], TranB12 [493], EdisO11 [160] | AbreuNP23 [143], Teppan22 [478], NaderiBZ22 [377], ColT22 [134], Bedhief21 [63], SacramentoSP20 [433], MejiaY20 [358], MokhtarzadehTNF20 [364], ParkUJR19 [405], Novas19 [388], BogaerdtW19 [504], BenediktSMVH18 [76], ZhouGL15 [555], TerekhovTDB14 [480], TranTDB13 [496], BajestaniB13 [32], KovacsB11 [292], AkkerDH07 [503], SadykovW06 [435], Thorsteinsson01 [485]  | KimCMLLP23 [282], JuvinHHL23 [268], LacknerMMWW23 [310], Mehdizadeh-Somarin23 [357], AlfieriGPS23 [11], ArmstrongGOS22 [19], HamPK21 [223], LacknerMMWW21 [309], HanenKP21 [225], FanXG21 [171], AbohashimaEG21 [2], AbreuAPNM21 [141], AstrandJZ20 [28], GroleazNS20a [215], QinDCS20 [423], NishikawaSTT19 [386], Ham18 [222], LaborieRSV18 [308], BaptisteB18 [35], HookerH18 [257], KletzanderM17 [284], KreterSS17 [299], FontaineMH16 [176], BurtLPS15 [111], KreterSS15 [298], NovasH14 [391], LombardiM12 [337], LahimerLH11 [311], KovacsB07 [290]... (Total: 32) |
| Classification | psplib           | TardivoDFMP23 [474], OuelletQ18 [397], GayHS15a [189], LetortCB15 [318], Derrien15 [151], KameugneFSN14 [275], DerrienP14 [152], SchuttFSW13 [445], SchuttFS13a [440], HeinzSB13 [239], SchuttFSW11 [444], BertholdHLMS10 [80], SchuttFSW09 [442], DemasseY03 [149]   | KameugneFND23 [273], BoudreaultSLQ22 [104], HillTV21 [246], BadicaBI20 [29], Tesch18 [482], FahimiOQ18 [168], BaptisteB18 [35], SzerediS16 [470], Tesch16 [481], GingrasQ16 [200], GayHLS15 [187], VilimLS15 [518], LombardiBM15 [331], BonfiettiLM14 [98], LetortCB13 [317], LombardiM12a [336], LetortBC12 [316], HeinzS11 [238], Vilim11 [515], SchuttW10 [448], abs-1009-0347 [443]   | Godet21a [202], LaborieRSV18 [308], CauwelaertLS18 [122], Pralet17 [418], YoungFS17 [539], BofillCSV17 [90], Dejemeppe16 [146], ThiruvadyWGS14 [484], LombardiM13 [338], OuelletQ13 [396], LombardiM12 [337], KameugneFSN11 [274], LiessM08 [320], FortinZDF05 [177], ElkhyariGJ02a [163]  |
| Classification | single machine   | PrataAN23 [420], AlfieriGPS23 [11], LacknerMMWW23 [310], TouatBT22 [490], HamPK21 [223], ZarandiASC20 [545], BenediktMH20 [75], BogaerdtW19 [504], BajestaniB15 [33], BajestaniB13 [32], KovacsB11 [292], ThiruvadyBME09 [483], KovacsB07 [290], SadykovW06 [435], SourdN00 [463]   | NaderiBZ22 [377], YuraszeckMPV22 [542], ZhangBB22 [549], PandeyS21a [401], Astrand21 [25], Bedhief21 [63], HillTV21 [246], KoehlerBFFHPSSS21 [285], AbreuAPNM21 [141], LacknerMMWW21 [309], NattafM20 [381], Lunardi20 [344], BenediktSMVH18 [76], Tesch18 [482], TranPZLDB18 [495], KoschB14 [289], BillautHL12 [83], TranB12 [493], KovacsK11 [294], Malapert11 [350], AkkerDH07 [503], Sadykov04 [434], OddiPCC03 [394], SchildW00 [438], BeckF98 [56] | abs-2402-00459 [383], IsikYA23 [262], NaderiRR23 [378], Mehdizadeh-Somarin23 [357], GeitzGSSW22 [196], AbreuN22 [142], ColT22 [134], abs-2211-14492 [466], PohlAK22 [413], ZhangJZL22 [548], LiFJZLL22 [319], Godet21a [202], FanXG21 [171], QinWSLS21 [422], KovacsTKSG21 [297], TangB20 [472], GodetLHS20 [203], ParkUJR19 [405], Tom19 [487], MalapertN19 [351], GedikKEK18 [191], AstrandJZ18 [27], ArbaouiY18 [17], GokgurHO18 [205], MossigeGSMC17 [369], Dejemeppe16 [146], TranWDRFOVB16 [499], DoulabiRP16 [159], ZarandiKS16 [544]... (Total: 61)                |



## 6.3 Concept Type Constraints

Table 12: Works for Concepts of Type Constraints

| Type        | Keyword                | High   | Medium  | Low  |
|-------------|------------------------|--|---|--|
| Constraints | alldifferent           | JuvinHHL23 [268], KoehlerBFFHPSSS21 [285], Godet21a [202], Lemos21 [315], CauwelaertLS18 [122], Dejemeppe16 [146], Derrien15 [151], Siala15a [456], Menana11 [359], Malapert11 [350], OhrimenkoSC09 [395], Simonis07 [461]                       | GodetLHS20 [203], HookerH18 [257], BessiereHMQW14 [81], KelarevaTK13 [277]  | WangB23 [525], ColT22 [134], BourreauGGLT22 [105], FarsiTM22 [172], Astrand21 [25], AstrandJZ20 [28], WangB20 [524], AntuoriHHEN20 [14], Lunardi20 [344], MokhtarzadehTNF20 [364], FahimiOQ18 [168], MelgarejoLS15 [8], AlesioNBG14 [154], ChuGNSW13 [126], ClercqPBJ11 [129], HermenierDL11 [245], HachemiGR11 [221], TrojetHL11 [500], LopesCSM10 [339], Malik08 [352], Thorsteinsson01 [485], BeldiceanuC94 [67]  |
| Constraints | alternative constraint | LaborieRSV18 [308]   | abs-2305-19888 [241], MurinR19 [373], GokgurHO18 [205]  | LacknerMMWW23 [310], NaderiRR23 [378], WinterMMW22 [531], ZhangJZL22 [548], SvancaraB22 [469], HeinzNVH22 [240], ArmstrongGOS21 [18], HubnerGSV21 [260], PandeyS21a [401], VlKHT21 [520], HillTV21 [246], MengZRZL20 [360], Polo-MejiaALB20 [414], SacramentoSP20 [433], YounespourAKE19 [538], EscobetPQPRA19 [165], GeibingerMM19 [194], NishikawaSTT19 [386], GalleguillosKSB19 [183], MalapertN19 [351], abs-1911-04766 [193], ArbaouiY18 [17], Laborie18a [307], NishikawaSTT18a [385], NishikawaSTT18 [384], CohenHB17 [131], TranVNB17a [498], TranVNB17 [497], CappartS17 [114]... (Total: 35) |
| Constraints | alwaysIn               | PopovicCGNC22 [415], SerraNM12 [450]   | AalianPG23 [1], LuoB22 [346], TangB20 [472], Polo-MejiaALB20 [414], MalapertN19 [351], LaborieRSV18 [308], GoelSHFS15 [204]   | CampeauG22 [113], KreterSS17 [299], BajestaniB13 [32]  |
| Constraints | bin-packing            | Godet21a [202], TangB20 [472], CauwelaertLS18 [122], LetortCB15 [318], LetortCB13 [317], HeinzSSW12 [237], LetortBC12 [316], SchausHMCMD11 [437], Malapert11 [350]   | LuoB22 [346], BadicaBI20 [29], FrimodigS19 [180], BaptisteB18 [35], GarganiR07 [184], SakkoutW00 [436], SchildW00 [438]   | abs-2402-00459 [383], LacknerMMWW23 [310], AkramNHRSA23 [9], abs-2211-14492 [466], YunusogluY22 [540], ArmstrongGOS21 [18], GodetLHS20 [203], HookerH18 [257], TranPZLDB18 [495], Madi-WambaLOBM17 [348], DoulabiRP16 [159], KoschB14 [289], DoulabiRP14 [158], LimtanyakulS12 [325], EdisO11 [160], HermenierDL11 [245], BeldiceanuCDP11 [69], Lombardi10 [330], KovacsB08 [291], HentenryckM08 [244], Simonis07 [461], DavenportKRSH07 [140], BeldiceanuC94 [67], AggounB93 [7]  |
| Constraints | circuit                | MontemanniD23a [367], KlankeBYE21 [283], Mercier-AubinGQ20 [362], MokhtarzadehTNF20 [364], HookerH18 [257], Lombardi10 [330], RuggieroBBMA09 [432], Rodriguez07 [430], RodriguezDG02 [429], GruianK98 [217], Wallace96 [522], BeldiceanuC94 [67] | WessenCS20 [529], AntuoriHHEN20 [14], Siala15a [456], TranB12 [493], Malapert11 [350], KrogtLPHJ07 [505], KuchcinskiW03 [302], Thorsteinsson01 [485], DincbasSH90 [156] | PrataAN23 [420], IsikYA23 [262], MontemanniD23 [368], JungblutK22 [267], FarsiTM22 [172], ColT22 [134], MullerMKP22 [372], KoehlerBFFHPSSS21 [285], ArmstrongGOS21 [18], Astrand21 [25], WallaceY20 [523], GroleazNS20 [216], EscobetPQPRA19 [165], CauwelaertLS18 [122], TangLWSK18 [473], CappartTSR18 [115], Hooker17 [254], HechingH16 [233], Dejemeppe16 [146], Bonfietti16 [93], BridiBLMB16 [107], MelgarejoLS15 [8], MurphyMB15 [374], Derrien15 [151], BajestaniB15 [33], HoundjiSWD14 [259], BonfiettiLBM14 [96], CireCH13 [128], SchuttsFS13a [440]... (Total: 49)                          |

Table 12: Works for Concepts of Type Constraints

| Type        | Keyword     | High   | Medium  | Low   |
|-------------|-------------|--|---|---|
| Constraints | cumulative  | PovedaAA23 [417], TardivoDFMP23 [474], NaderiRR23 [378], AalianPG23 [1], KameugneFND23 [273], IsikYA23 [262], LacknerMMWW23 [310], FetgoD22 [174], PohlAK22 [413], OuelletQ22 [398], ZhangJZL22 [548], LuoB22 [346], BoudreaultSLQ22 [104], LacknerMMWW21 [309], HanenKP21 [225], KovacsTKSG21 [297], Godet21a [202], Lemos21 [315], SacramentoSP20 [433], Polo-MejiaALB20 [414], Mercier-AubinGQ20 [362], WallaceY20 [523], GodetLHS20 [203], GroleazNS20a [215], GroleazNS20 [216], YangSS19 [537], abs-1911-04766 [193], Novas19 [388], MalapertN19 [351]... (Total: 137) | PrataAN23 [420], abs-2402-00459 [383], EfthymiouY23 [161], abs-2312-13682 [408], PerezGSL23 [407], ColT22 [134], YunusogluY22 [540], CampeauG22 [113], GeitzGSSW22 [196], AbreuN22 [142], HubnerGSV21 [260], HillTV21 [246], KlankeBYE21 [283], NattafM20 [381], GalleguillosKSB19 [183], NishikawaSTT19 [386], BorghesiBLMB18 [102], GedikKEK18 [191], TranVNB17a [498], BoothNB16 [101], BonfiettiZLM16 [100], LimHTB16 [322], Bonfietti16 [93], GayHLS15 [187], BurtLPS15 [111], ThiruvadyWGS14 [484], GuSS13 [218], BonfiettiLM13 [97], LimtanyakulS12 [325]... (Total: 46) | GurPAE23 [220], TasselGS23 [475], abs-2306-05747 [476], abs-2305-19888 [241], Bit-Monnot23 [84], YuraszeckMCCR23 [543], JuvinHHL23 [268], HeinzNVH22 [240], PopovicCGNC22 [415], abs-2211-14492 [466], SubulanC22 [465], HebrardALLCMR22 [230], ArmstrongGOS22 [19], Astrand21 [25], PandeyS21a [401], KoehlerBFFHPSSS21 [285], GeibingerMM21 [195], ArmstrongGOS21 [18], ZouZ20 [559], abs-1902-09244 [228], FrimodigS19 [180], WikarekS19 [530], YounespourAKE19 [538], Laborie18a [307], AstrandJZ18 [27], ZhangW18 [551], Ham18 [222], ArbaouiY18 [17], DemirovicS18 [150]... (Total: 89) |
| Constraints | cycle       | AalianPG23 [1], AstrandOF21 [26], Astrand21 [25], AntuoriHHEN21 [15], AbohashimaEG21 [2], GroleazNS20a [215], AntuoriHHEN20 [14], WallaceY20 [523], AstrandJZ20 [28], ParkUJR19 [405], BorghesiBLMB18 [102], AstrandJZ18 [27], Dejemeppe16 [146], BridiBLMB16 [107], BonfiettiLBM14 [96], BessiereHMQW14 [81], BegB13 [64], LombardiBMB11 [332], Malapert11 [350], SunLYL10 [467], BocewiczBB09 [89], RuggieroBBMA09 [432], MalikMB08 [353], Malik08 [352], RossiTHP07 [431], WolinskiKG04 [534], KuchcinskiW03 [302], Kumar03 [303], ArtiguesR00 [23]... (Total: 35)        | EfthymiouY23 [161], CampeauG22 [113], KoehlerBFFHPSSS21 [285], HillTV21 [246], HubnerGSV21 [260], Godet21a [202], Lemos21 [315], GroleazNS20 [216], Lunardi20 [344], ZarandiASC20 [545], MossigeGSMC17 [369], SimoninAHL15 [459], PraletLJ15 [419], BurtLPS15 [111], Siala15a [456], TranTDB13 [496], SchuttFSW13 [445], SimoninAHL12 [458], BonfiettiLBM12 [95], HachemiGR11 [221], KovacsB11 [292], BonfiettiLBM11 [94], Vilim11 [515], abs-1009-0347 [443], Lombardi10 [330], KovacsB08 [291], Simonis07 [461], LiuJ06 [329], BeniniBGM06 [77]... (Total: 34)                | Bit-Monnot23 [84], AkramNHRSa23 [9], ZhangBB22 [549], BourreauGGLT22 [105], AbreuN22 [142], HamPK21 [223], ArmstrongGOS21 [18], AbreuAPNM21 [141], FanXG21 [171], FallahiAC20 [170], TangB20 [472], Mercier-AubinGQ20 [362], QinDCS20 [423], BadicaBI20 [29], MokhtarzadehTNF20 [364], Novas19 [388], BadicaBIL19 [30], abs-1902-09244 [228], KucukY19 [304], EscobetPQPRA19 [165], TangLWSK18 [473], MusliuSS18 [376], LaborieRSV18 [308], Ham18 [222], KreterSS17 [299], Pralet17 [418], DoulabiRP16 [159], TranDRFWOVB16 [494], BonfiettiZLM16 [100]... (Total: 69)                        |
| Constraints | diffn       | ArmstrongGOS21 [18], Simonis07 [461], BeldiceanuC94 [67]   | BeldiceanuCDP11 [69]  | LuoB22 [346], BourreauGGLT22 [105], KreterSS17 [299], KreterSS15 [298], TrojetHL11 [500], Malapert11 [350], Timpe02 [486], GruianK98 [217], SimonisC95 [462], Simonis95 [460]   |
| Constraints | disjunctive | JuvinHHL23 [268], NaderiRR23 [378], Bit-Monnot23 [84], YuraszeckMPV22 [542], BourreauGGLT22 [105], ZhangBB22 [549], Astrand21 [25], Godet21a [202], KoehlerBFFHPSSS21 [285], GodetLHS20 [203], LaborieRSV18 [308], HookerH18 [257], FahimiOQ18 [168], GokgurHO18 [205], NattafAL17 [380], Pralet17 [418], MossigeGSMC17 [369], FontaineMH16 [176], GoelSHFS15 [204], GayHS15a [189], MelgarejoLS15 [8], SialaAH15 [457], Siala15a [456], SchuttFS13 [441], OzturkTHO13 [400], SchuttFS13a [440], LombardiM12 [337], BeldiceanuCDP11 [69], SchuttFSW11 [444]... (Total: 61)   | BoudreaultSLQ22 [104], AstrandOF21 [26], GeibingerMM21 [195], SacramentoSP20 [433], AstrandJZ20 [28], MejiaY20 [358], Polo-MejiaALB20 [414], YangSS19 [537], CauwelaertLS18 [122], DemirovicS18 [150], KameugneFGQ18 [272], Dejemeppe16 [146], SimoninAHL15 [459], EvenSH15 [166], EvenSH15a [167], GayHS15 [188], VilimLS15 [518], LipovetzkyBPS14 [326], KameugneFSN14 [275], GaySS14 [190], KelbelH11 [278], HeinzS11 [238], GrimesH11 [211], LiessM08 [320], MouraSCL08a [370], MouraSCL08 [371], MonetteDD07 [365], ArtiouchineB05 [24], BeckR03 [59]... (Total: 35)       | abs-2402-00459 [383], LacknerMMWW23 [310], TardivoDFMP23 [474], abs-2306-05747 [476], KameugneFND23 [273], PovedaAA23 [417], EfthymiouY23 [161], TasselGS23 [475], NaderiBZ22 [377], MullerMKP22 [372], OuelletQ22 [398], ColT22 [134], abs-2211-14492 [466], OujanaAYB22 [399], KlankeBYE21 [283], ZhangYW21 [550], Lunardi20 [344], ZarandiASC20 [545], Mercier-AubinGQ20 [362], WallaceY20 [523], KucukY19 [304], abs-1911-04766 [193], WikarekS19 [530], ColT19 [133], AstrandJZ18 [27], OuelletQ18 [397], CappartTSR18 [115], Ham18 [222], YoungFS17 [539]... (Total: 113)               |

Table 12: Works for Concepts of Type Constraints

| Type        | Keyword            | High  | Medium   | Low   |
|-------------|--------------------|---|--|---|
| Constraints | endBeforeStart     | SubulanC22 [465], QinDCS20 [423]  | NaderiRR23 [378], IsikYA23 [262], PandeyS21a [401], LunardiBLRV20 [343], Lunardi20 [344], MengZRZL20 [360], LaborieRSV18 [308], NovaraNH16 [387], Laborie09 [306]  | JuvinHHL23 [268], YuraszeckMCCR23 [543], CzerniachowskaWZ23 [136], LacknerMMWW23 [310], JuvinHL23 [269], AalianPG23 [1], Teppan22 [478], YunusogluY22 [540], CampeauG22 [113], ZhangJZL22 [548], HamPK21 [223], HubnerGSV21 [260], ZhangYW21 [550], LacknerMMWW21 [309], TangB20 [472], ZouZ20 [559], SacramentoSP20 [433], BenediktMH20 [75], Polo-MejiaALB20 [414], MurinR19 [373], abs-1902-09244 [228], ParkUJR19 [405], GeibingerMM19 [194], abs-1911-04766 [193], Novas19 [388], NishikawaSTT18a [385], NishikawaSTT18 [384], Ham18 [222]                                 |
| Constraints | geost              | BeldiceanuCDP11 [69]  | LetortBC12 [316], PembertonG98 [406]   | Malapert11 [350], BeldiceanuCP08 [70]   |
| Constraints | noOverlap          | abs-2305-19888 [241], NaderiRR23 [378], IsikYA23 [262], JuvinHHL23 [268], HeinzNVH22 [240], ColT22 [134], PopovicCGNC22 [415], VlKHT21 [520], LunardiBLRV20 [343], Lunardi20 [344], QinDCS20 [423], GedikKEK18 [191], MelgarejoLS15 [8] | KimCMLLP23 [282], abs-2306-05747 [476], LacknerMMWW23 [310], TasselGS23 [475], AbreuN22 [142], YuraszeckMPV22 [542], PohlAK22 [413], SvancaraB22 [469], KlankeBYE21 [283], Bedhief21 [63], BenderWS21 [73], BenediktMH20 [75], MengZRZL20 [360], ZouZ20 [559], SacramentoSP20 [433], YounespourAKE19 [538], MalapertN19 [351], MurinR19 [373], abs-1911-04766 [193], EscobetPQPRA19 [165], Novas19 [388], LaborieRSV18 [308], ZhangW18 [551], ArbaouiY18 [17], Ham18 [222], TranVNB17 [497], CohenHB17 [131], NovaraNH16 [387], BoothNB16 [101]... (Total: 32) | AbreuNP23 [143], JuvinHL23 [269], YuraszeckMC23 [541], AalianPG23 [1], CzerniachowskaWZ23 [136], SquillaciPR23 [464], Teppan22 [478], YunusogluY22 [540], WinterMMW22 [531], CampeauG22 [113], OujanaAYB22 [399], ArmstrongGOS22 [19], TouatBT22 [490], ZhangJZL22 [548], NaderiBZ22 [377], HamPK21 [223], AbreuAPNM21 [141], LacknerMMWW21 [309], GroleazNS20 [216], GroleazNS20a [215], NattafM20 [381], Polo-MejiaALB20 [414], BogaerdtW19 [504], ColT19 [133], GeibingerMM19 [194], KucukY19 [304], ParkUJR19 [405], BenediktSMVH18 [76], CappartTSR18 [115]... (Total: 34) |
| Constraints | regular expression |   | FrimodigS19 [180]  | HookerH18 [257]   |
| Constraints | span constraint    |   | CappartS17 [114], SchuttFS13 [441], LombardiM10a [334], Lombardi10 [330], Darby-DowmanLMZ97 [138]  | OujanaAYB22 [399], ZhangBB22 [549], TangB20 [472], ZouZ20 [559], YounespourAKE19 [538], LaborieRSV18 [308], SimoninAHL15 [459], SimoninAHL12 [458], SchuttFSW11 [444]   |
| Constraints | table constraint   | LombardiM10a [334], Lombardi10 [330], PapaB98 [404]   | JelinekB16 [265]   | PerezGSL23 [407], abs-2312-13682 [408], ArmstrongGOS21 [18], CauwelaertLS18 [122], GayHS15 [188], PesantRR15 [409], MelgarejoLS15 [8], Siala15a [456], LimtanyakulS12 [325], BeniniLMR11 [78], BeckFW11 [55], HermenierDL11 [245], LopesCSM10 [339], MouraSCL08 [371], GodardLN05 [201], Laborie03 [305], ElkhyariGJ02 [162]  |

## 6.4 Concept Type ProgLanguages

Table 13: Works for Concepts of Type ProgLanguages

| Type          | Keyword | High   | Medium  | Low   |
|---------------|---------|--|---|---|
| ProgLanguages | C       | KoehlerBFFHPSSS21 [285]  |   | HubnerGSV21 [260], BogaerdtW19 [504], TangLWSK18 [473], LaborieRSV18 [308], HoYCLLC18 [247], LombardiM10a [334], Lombardi10 [330], Laborie09 [306], GarridoOS08 [186], Layfield02 [314]   |
| ProgLanguages | C++     |  | BourreauGGLT22 [105], NethercoteSBBDT07 [382], Demassey03 [149]   | TardivoDFMP23 [474], JuvinHHL23 [268], PopovicCGNC22 [415], ColT22 [134], Astrand21 [25], AntuoriHHEN21 [15], QinWSLS21 [422], AbreuAPNM21 [141], Lemos21 [315], Polo-MejiaALB20 [414], AstrandJZ20 [28], Mercier-AubinGQ20 [362], abs-1902-01193 [10], LaborieRSV18 [308], ArbaouiY18 [17], TranPZLDB18 [495], NattafAL17 [380], BoothNB16 [101], Tesch16 [481], Bonfietti16 [93], NattafAL15 [379], TranTDB13 [496], SchuttFSW13 [445], GuSW12 [219], TranB12 [493], LombardiBMB11 [332], LahimerLH11 [311], BeckFW11 [55], KovacsK11 [294]... (Total: 56)                      |
| ProgLanguages | Java    | abs-2102-08778 [132], Malapert11 [350]   | KuchcinskiW03 [302]   | abs-2306-05747 [476], AlfieriGPS23 [11], TasselGS23 [475], KameugneFND23 [273], MullerMKP22 [372], FetgoD22 [174], ColT22 [134], YuraszekMPV22 [542], OuelletQ22 [398], Teppan22 [478], FanXG21 [171], AntuoriHHEN21 [15], ArmstrongGOS21 [18], Lemos21 [315], MejiaY20 [358], SacramentoSP20 [433], TangB20 [472], BarzegaranZP20 [50], abs-1911-04766 [193], FrohnerTR19 [181], Tom19 [487], ColT19 [133], GeibingerMM19 [194], CauwelaertLS18 [122], OuelletQ18 [397], LaborieRSV18 [308], KameugneFGQ18 [272], Madi-WambaB16 [347], CauwelaertDMS16 [121]... (Total: 48)      |
| ProgLanguages | Julia   |  |   | HebrardALLCMR22 [230], Astrand21 [25]   |
| ProgLanguages | Lisp    |  |   | Wallace96 [522]   |
| ProgLanguages | Prolog  | ArmstrongGOS21 [18], FalaschiGMP97 [169], Zhou97 [554], LammaMM97 [312], Wallace96 [522], Touraivane95 [491], Simonis95 [460], DincbasSH90 [156] | BadicaBI20 [29], MossigeGSMC17 [369], Madi-WambaLOBM17 [348], Malapert11 [350], MartinPY01 [355], RodosekW98 [428], Zhou96 [553], SimonisC95 [462], BeldiceanuC94 [67], AggounB93 [7] | PopovicCGNC22 [415], ArmstrongGOS22 [19], ZarandiASC20 [545], abs-1902-01193 [10], YangSS19 [537], CauwelaertLS18 [122], JelinekB16 [265], LetortCB15 [318], LetortCB13 [317], LetortBC12 [316], TrojetHL11 [500], BeldiceanuCDP11 [69], Menana11 [359], BartakCS10 [45], AronssonBK09 [20], BeldiceanuCP08 [70], KrogtLPHJ07 [505], Simonis07 [461], QuSN06 [424], Geske05 [198], PoderBS04 [412], Bartak02 [43], BeldiceanuC02 [68], Beck99 [51], KorbAAYG99 [287], BeckF98 [56], Darby-DowmanLMZ97 [138], BrusoniCLMMT96 [110], Goltz95 [208], ErtlK91 [164]                   |
| ProgLanguages | Python  | KoehlerBFFHPSSS21 [285]  | abs-2211-14492 [466], AbreuN22 [142], AbreuAPNM21 [141], LaborieRSV18 [308]   | EfthymiouY23 [161], SquillaciPR23 [464], Mehdizadeh-Somarin23 [357], AbreuNP23 [143], KimCMLLP23 [282], MontemanniD23 [368], PovedaAA23 [417], MontemanniD23a [367], AkramNHRSA23 [9], NaderiRR23 [378], FetgoD22 [174], PohlAK22 [413], MullerMKP22 [372], ZhangBB22 [549], LuoB22 [346], CampeauG22 [113], KlankeBYE21 [283], FanXG21 [171], HanenKP21 [225], BenderWS21 [73], AbohashimaEG21 [2], Lemos21 [315], Lunardi20 [344], LunardiBLRV20 [343], Mercier-AubinGQ20 [362], FrimodigS19 [180], BehrensLM19 [65], FrohnerTR19 [181], GalleguillosKSB19 [183]... (Total: 37) |

## 6.5 Concept Type CPSystems

Table 14: Works for Concepts of Type CPSystems

| Type      | Keyword      | High  | Medium  | Low  |
|-----------|--------------|---|---|--|
| CPSystems | CHIP         | TrojetHL11 [500], Simonis07 [461], GruianK98 [217], Wallace96 [522], Simonis95 [460], Goltz95 [208], SimonisC95 [462], BeldiceanuC94 [67], AggounB93 [7], DincbasSH90 [156]   | ArmstrongGOS21 [18], YangSS19 [537], LaborieRSV18 [308], HookerH18 [257], Geske05 [198], PoderBS04 [412], Timpe02 [486], Beck99 [51], RodosekW98 [428], Zhou97 [554], LammaMM97 [312]   | PrataAN23 [420], TardivoDFMP23 [474], KameugneFND23 [273], LuoB22 [346], FetgoD22 [174], BourreauGGLT22 [105], PopovicCGNC22 [415], Godet21a [202], KlankeBYE21 [283], GodetLHS20 [203], abs-1902-01193 [10], BaptisteB18 [35], KameugneFGOQ18 [272], CauwelaertLS18 [122], GoldwaserS18 [207], GokgurHO18 [205], MossigeGSMC17 [369], Pralet17 [418], KreterSS17 [299], Madi-WambaB16 [347], Dejemeppe16 [146], FontaineMH16 [176], ZhouGL15 [555], SimoninAHL15 [459], LetortCB15 [318], KreterSS15 [298], Siala15a [456], GrimesIOS14 [214], KameugneFSN14 [275]... (Total: 61) |
| CPSystems | CPO          | NaderiRR23 [378], LacknerMMWW23 [310], JuvinHHL23 [268], Bit-Monnot23 [84], CzerniachowskaWZ23 [136], WinterMMW22 [531], ZhangBB22 [549], ColT22 [134], NaderiBZ22 [377], LacknerMMWW21 [309], ArmstrongGOS21 [18], Lunardi20 [344], NattafM20 [381], GroleazNS20 [216], Polo-MejiaALB20 [414], GroleazNS20a [215], SacramentoSP20 [433], GeibingerMM19 [194], ColT19 [133], MalapertN19 [351], LaborieRSV18 [308], CappartTSR18 [115], KreterSS17 [299], GoelSHFS15 [204], PraletLJ15 [419], Laborie09 [306] | AalianPG23 [1], abs-1911-04766 [193], Dejemeppe16 [146], NuijtenA94 [392]   | JuvinHL23 [269], PovedaAA23 [417], OujanaAYB22 [399], GeibingerMM21 [195], abs-2102-08778 [132], TangB20 [472], Laborie18a [307], Pralet17 [418], VilimLS15 [518], BartakSR10 [47], GarridoAO09 [185], Vilim09 [513], GarridoOS08 [186], BeldiceanuC94 [67]  |
| CPSystems | Choco Solver | TasselGS23 [475], abs-2306-05747 [476], Godet21a [202], LetortCB15 [318], Derrien15 [151], LetortCB13 [317], OuelletQ13 [396], LetortBC12 [316], Menana11 [359], Malapert11 [350], GrimesHM09 [213], abs-0907-0939 [410], GarridoAO09 [185], GarridoOS08 [186]  | KameugneFND23 [273], MullerMKP22 [372], FetgoD22 [174], AntuoriHHEN21 [15], AntuoriHHEN20 [14], LiuLH19 [327], FahimiOQ18 [168], KameugneFGOQ18 [272], LaborieRSV18 [308], GayHS15 [188], KoschB14 [289], DerrienPZ14 [153], DerrienP14 [152], HermenierDL11 [245], ClercqPBJ11 [129] | BourreauGGLT22 [105], OuelletQ22 [398], GodetLHS20 [203], YangSS19 [537], OuelletQ18 [397], GingrasQ16 [200], Madi-WambaB16 [347], EvenSH15a [167], MurphyMB15 [374], EvenSH15 [166], BessiereHMQW14 [81], BartakSR10 [47], RossiTHP07 [431], NethercoteSBBDT07 [382]  |
| CPSystems | Chuffed      | LacknerMMWW23 [310], PovedaAA23 [417], BoudreaultSLQ22 [104], MullerMKP22 [372], LacknerMMWW21 [309], GeibingerMM21 [195], ArmstrongGOS21 [18], Godet21a [202], KoehlerBFFHPSSS21 [285], WallaceY20 [523], GodetLHS20 [203], abs-1911-04766 [193], YoungFS17 [539], KreterSS17 [299], SzerediS16 [470], KreterSS15 [298]  | GoldwaserS18 [207]  | SchuttS16 [447]  |
| CPSystems | Claire       | Siala15a [456], Malapert11 [350], Demasse03 [149], BaptisteP00 [38]   | Menana11 [359], BaptisteP97 [37]  | HebrardALLCMR22 [230], HanenKP21 [225], Godet21a [202], Derrien15 [151], PapaB98 [404]   |

Table 14: Works for Concepts of Type CPSystems

| Type      | Keyword        | High   | Medium   | Low  |
|-----------|----------------|--|--|--|
| CPSystems | Cplex          | CzerniachowskaWZ23 [136], NaderiRR23 [378], SubulanC22 [465], NaderiBZ22 [377], BourreauGGLT22 [105], MullerMKP22 [372], WinterMMW22 [531], HubnerGSV21 [260], GeibingerKKMMW21 [192], KoehlerBFFHPSSS21 [285], PandeyS21a [401], Bedhief21 [63], HamPK21 [223], Lemos21 [315], QinDCS20 [423], ZouZ20 [559], SacramentoSP20 [433], MejiaY20 [358], LunardiBLRV20 [343], Lunardi20 [344], MengZRZL20 [360], MurinR19 [373], GeibingerMM19 [194], abs-1911-04766 [193], NishikawaSTT19 [386], GurEA19 [560], LaborieRSV18 [308], NishikawaSTT18 [384], NishikawaSTT18a [385]... (Total: 40) | LacknerMMWW23 [310], MehdiZadeh-Somarin23 [357], AbreuNP23 [143], IsikYA23 [262], CampeauG22 [113], YunusogluY22 [540], LuoB22 [346], ColT22 [134], TouatBT22 [490], LacknerMMWW21 [309], KovacsTKSG21 [297], QinWSLS21 [422], ArmstrongGOS21 [18], MokhtarzadehTNF20 [364], NattafM20 [381], WallaceY20 [523], abs-1902-09244 [228], MalapertN19 [351], Novas19 [388], DoulabiRP16 [159], HechingH16 [233], VilimLS15 [518], BofilIGSV15 [92], NattafAL15 [379], PraletLJ15 [419], BofilEGPSV14 [91], GrimesIOS14 [214], HeinzKB13 [236], HeinzB12 [235]... (Total: 43) | AlfieriGPS23 [11], JuvinHL23 [269], SquillaciPR23 [464], GurPAE23 [220], PovedaAA23 [417], YuraszcekMCCR23 [543], AalianPG23 [1], FarsiTM22 [172], abs-2211-14492 [466], YuraszcekMPV22 [542], PohlAK22 [413], PopovicCGNC22 [415], AbreuN22 [142], ZhangYW21 [550], abs-2102-08778 [132], GeibingerMM21 [195], FanXG21 [171], Astrand21 [25], VlkHT21 [520], KlankeBYE21 [283], AbreuAPNM21 [141], TangB20 [472], Polo-MejiaALB20 [414], GroleazNS20a [215], FrimodigS19 [180], BogaerdTW19 [504], EscobetQPRA19 [165], KucukY19 [304], TranPZLDB18 [495]... (Total: 87)  |
| CPSystems | ECLiPSe        | BadicaBI20 [29], BadicaBIL19 [30], NethercoteSBBDT07 [382], RodosekW98 [428]   | SchuttFSW11 [444], Malapert11 [350], KamarainenS02 [270], Darby-DowmanLMZ97 [138], Wallace96 [522]   | FanXG21 [171], MejiaY20 [358], WikarekS19 [530], HookerH18 [257], ZeballosQH10 [547], SchuttFSW09 [442], BeniniBGM06 [77], ChuX05 [127], QuirogaZH05 [425], MartinPY01 [355], LammaMM97 [312]  |
| CPSystems | Gecode         | TardivoDFMP23 [474], Astrand21 [25], BadicaBI20 [29], AstrandJZ20 [28], BadicaBIL19 [30], SzerediS16 [470], ZhouGL15 [555], GayHS15 [188], KameugneFSN14 [275], OhrimenkoSC09 [395], NethercoteSBBDT07 [382]   | MullerMKP22 [372], AntuoriHHEN21 [15], GeibingerKKMMW21 [192], AstrandOF21 [26], FrohnerTR19 [181], abs-1911-04766 [193], GeibingerMM19 [194], LaborieRSV18 [308], BurtLPS15 [111], BofilEGPSV14 [91], KovacsK11 [294], KameugneFSN11 [274], Malapert11 [350], ThiruvadyBME09 [483]  | ArmstrongGOS21 [18], WessenCS20 [529], WallaceY20 [523], MengZRZL20 [360], FrimodigS19 [180], YangSS19 [537], MusliuSS18 [376], CauwelaertLS18 [122], AstrandJZ18 [27], GoldwasserS18 [207], GoldwasserS17 [206], Dejemeppe16 [146], PesantRR15 [409], MonetteDD07 [365]   |
| CPSystems | Gurobi         | WangB23 [525], NaderiRR23 [378], LacknerMMWW23 [310], WinterMMW22 [531], ZhangBB22 [549], KovacsTKSG21 [297], GeibingerKKMMW21 [192], KoehlerBFFHPSSS21 [285], LacknerMMWW21 [309], Lemos21 [315], WangB20 [524], WallaceY20 [523], FrohnerTR19 [181], MusliuSS18 [376]  | VlkHT21 [520], GoldwasserS18 [207], GoldwasserS17 [206], FontaineMH16 [176]  | KimCMLLP23 [282], abs-2305-19888 [241], MontemanniD23 [368], HeinzNVH22 [240], PohlAK22 [413], HubnerGSV21 [260], FanXG21 [171], KlankeBYE21 [283], AbohashimaEG21 [2], BenediktMH20 [75], MengZRZL20 [360], He0GLW18 [229], DemirovicS18 [150], BenediktSMVH18 [76], BurtLPS15 [111], PesantRR15 [409]  |
| CPSystems | Ilog Scheduler | GrimesH11 [211], Malapert11 [350], ZeballosQH10 [547], Laborie03 [305]   | LaborieRSV18 [308], NovasH12 [390], HeinzB12 [235], LimtanyakulS12 [325], HeckmanB11 [234], BeckFW11 [55], GrimesHM09 [213], WatsonB08 [528], ZeballosH05 [546], BeckR03 [59], Beck99 [51], NuijtenP98 [393]   | Laborie18a [307], SchuttS16 [447], TranWDRFOVB16 [499], TerekhovTDB14 [480], NovasH14 [391], BeniniLMR11 [78], KovacsB11 [292], SchuttFSW11 [444], LahimerLH11 [311], HachemiGR11 [221], LopesCSM10 [339], abs-1009-0347 [443], NovasH10 [389], Vilim09a [514], RuggieroBBMA09 [432], BidotVLB09 [82], KovacsB08 [291], MouraSCL08a [370], MouraSCL08 [371], HoeveGSL07 [506], Beck07 [53], Rodriguez07 [430], Simonis07 [461], BeckW07 [62], KovacsV06 [296], Beck06 [52], Hooker06 [252], WuBB05 [535], ArtiouchineB05 [24]... (Total: 44)                               |
| CPSystems | Ilog Solver    |  | GrimesH11 [211], ZeballosQH10 [547]  | abs-1902-01193 [10], LaborieRSV18 [308], HookerH18 [257], Dejemeppe16 [146], ZarandiKS16 [544], PesantRR15 [409], Siala15a [456], BonfiettiLBM14 [96], NovasH14 [391], OzturkTHO13 [400], BonfiettiLBM12 [95], NovasH12 [390], HeinzB12 [235], LombardiM12a [336], KelbelH11 [278], BonfiettiLBM11 [94], BajestaniB11 [31], KovacsK11 [294], KovacsB11 [292], TopalogluO11 [488], LombardiM10 [335], abs-1009-0347 [443], LopesCSM10 [339], Lombardi10 [330], LombardiM09 [333], RuggieroBBMA09 [432], MouraSCL08a [370], MouraSCL08 [371], KovacsB08 [291]... (Total: 52) |

Table 14: Works for Concepts of Type CPSystems

| Type      | Keyword  | High  | Medium   | Low   |
|-----------|----------|---|--|---|
| CPSystems | MiniZinc | LacknerMMWW23 [310], TardivoDFMP23 [474], ColT22 [134], BoudreaultSLQ22 [104], MullerMKP22 [372], JungblutK22 [267], ArmstrongGOS21 [18], KoehlerBFFHPSSS21 [285], LacknerMMWW21 [309], Mercier-AubinGQ20 [362], WallaceY20 [523], abs-1911-04766 [193], ColT19 [133], FrohnerTR19 [181], GeibingerMM19 [194], HookerH18 [257], YoungFS17 [539], LiuCGM17 [328], SzerediS16 [470], BofilEGPSV14 [91], KelarevaTK13 [277], NethercoteSBBDT07 [382] | PovedaAA23 [417], Godet21a [202], MusliuSS18 [376], KreterSS17 [299], KreterSS15 [298]   | Bit-Monnot23 [84], OuelletQ22 [398], GeibingerKKMMW21 [192], abs-2102-08778 [132], abs-1901-07914 [66], FrimodigS19 [180], BehrensLM19 [65], DemirovicS18 [150], CappartTSR18 [115], TranVNB17 [497], FontaineMH16 [176], SchuttS16 [447], BurtLPS15 [111], HeinzSB13 [239], SchuttFS13 [441]   |
| CPSystems | Mistral  | JuvinHHL23 [268], Siala15a [456], Malapert11 [350], GrimesHM09 [213]  | Bit-Monnot23 [84], BillautHL12 [83]  | SialaAH15 [457]   |
| CPSystems | OPL      | LacknerMMWW23 [310], YunusogluY22 [540], MullerMKP22 [372], TouatBT22 [490], ColT22 [134], LacknerMMWW21 [309], PandeyS21a [401], KoehlerBFFHPSSS21 [285], QinDCS20 [423], Novas19 [388], EscobetPQPRA19 [165], TangLWSK18 [473], LaborieRSV18 [308], NovaraNH16 [387], Dejemeppe16 [146], AlesioNBG14 [154], NovasH12 [390], HachemiGR11 [221], ZeballosQH10 [547], Laborie09 [306], KhayatLR06 [280], AggounB93 [7]                             | SubulanC22 [465], Teppan22 [478], Mercier-AubinGQ20 [362], ZarandiASC20 [545], ZouZ20 [559], MurinR19 [373], HookerH18 [257], Laborie18a [307], CappartTSR18 [115], LimBTBB15 [323], WangMD15 [526], EvenSH15a [167], NovasH14 [391], OzturkTHO13 [400], SerraNM12 [450], HeinzB12 [235], TopalogluO11 [488], EdisO11 [160], KelbelH11 [278], ZibranR11a [558], Menana11 [359], NovasH10 [389], Simonis07 [461], GarganiR07 [184], KrogtLPHJ07 [505], NethercoteSBBDT07 [382], Hooker06 [252], ZeballosH05 [546], QuirogaZH05 [425]... (Total: 34) | abs-2402-00459 [383], GurPAE23 [220], CzerniachowskaWZ23 [136], MontemanniD23 [368], IsikYA23 [262], EfthymiouY23 [161], YuraszeckMCCR23 [543], PerezGSL23 [407], AbreuNP23 [143], abs-2312-13682 [408], GeitzGSSW22 [196], ArmstrongGOS22 [19], ZhangBB22 [549], BoudreaultSLQ22 [104], OujanaAYB22 [399], LiFJZLL22 [319], VlkHT21 [520], Astrand21 [25], Bedhief21 [63], HamPK21 [223], QinWSL21 [422], Godet21a [202], abs-2102-08778 [132], HubnerGSV21 [260], Lemos21 [315], Lunardi20 [344], WallaceY20 [523], MengZRZL20 [360], BogaerdTW19 [504]... (Total: 86)                  |
| CPSystems | OR-Tools | abs-2402-00459 [383], LacknerMMWW23 [310], abs-2211-14492 [466], ColT22 [134], MullerMKP22 [372], abs-2102-08778 [132], KovacsTKSG21 [297], LacknerMMWW21 [309], KoehlerBFFHPSSS21 [285], FallahiAC20 [170], ColT19 [133], GayHS15 [188]  | EfthymiouY23 [161], BoudreaultSLQ22 [104], GeibingerKKMMW21 [192], Godet21a [202], BarzegaranZP20 [50], LiuCGM17 [328], Dejemeppe16 [146]  | Bit-Monnot23 [84], KimCMLLP23 [282], MontemanniD23 [368], AkramNHRSA23 [9], MontemanniD23a [367], Teppan22 [478], KlankeBYE21 [283], MengZRZL20 [360], GroleazNS20 [216], GalleguillosKSB19 [183], BehrensLM19 [65], abs-1901-07914 [66], YangSS19 [537], PourDERB18 [416], BonfiettiZLM16 [100], ZhouGL15 [555], LombardiM12 [337]   |
| CPSystems | OZ       | PrataAN23 [420], NaderiRR23 [378], CzerniachowskaWZ23 [136], IsikYA23 [262], NaderiBZ22 [377], YunusogluY22 [540], ZarandiASC20 [545], WikarekS19 [530], GokgurHO18 [205], CohenHB17 [131], TopalogluO11 [488], NovasH10 [389], Lombardi10 [330], RuggieroBBMA09 [432], Demassey03 [149], Layfield02 [314], VanczaM01 [507], SchildW00 [438], BeldiceanuC94 [67]  | GeitzGSSW22 [196], BourreauGGLT22 [105], AbreuN22 [142], SubulanC22 [465], PohlAK22 [413], Astrand21 [25], FanXG21 [171], Godet21a [202], GodetLHS20 [203], AstrandJZ20 [28], WessenCS20 [529], abs-1901-07914 [66], LiuLH19 [327], Novas19 [388], BehrensLM19 [65], CauwelaertLS18 [122], HookerH18 [257], Hooker17 [254], BridiBLMB16 [107], HebrardHJMPV16 [231], Dejemeppe16 [146], BajestaniB13 [32], EdisO11 [160], Menana11 [359], GrimesH11 [211], ZeballosQH10 [547], BocewiczBB09 [89], LiessM08 [320], SureshMOK06 [468]... (Total: 32) | Mehdizadeh-Somarin23 [357], GurPAE23 [220], MullerMKP22 [372], CampeauG22 [113], HebrardALLCMR22 [230], ZhangJZL22 [548], ArmstrongGOS22 [19], FetgoD22 [174], TouatBT22 [490], abs-2211-14492 [466], LiFJZLL22 [319], PopovicCGNC22 [415], AbreuAPNM21 [141], ArmstrongGOS21 [18], Bedhief21 [63], LacknerMMWW21 [309], QinWSL21 [422], PandeyS21a [401], Lemos21 [315], WangB20 [524], SacramentoSP20 [433], FallahiAC20 [170], abs-1911-04766 [193], GurEA19 [560], Tom19 [487], abs-1902-09244 [228], FrimodigS19 [180], NishikawaSTT19 [386], GalleguillosKSB19 [183]... (Total: 86) |
| CPSystems | SICStus  | ArmstrongGOS21 [18], LetortCB15 [318], LetortCB13 [317], LetortBC12 [316]   | MossigeGSMC17 [369], SchuttFSW11 [444], Malapert11 [350], QuSN06 [424]   | ArmstrongGOS22 [19], PopovicCGNC22 [415], YangSS19 [537], Madi-WambaLOBM17 [348], JelinekB16 [265], BeldiceanuCDP11 [69], TrojetHL11 [500], BartakCS10 [45], SchuttFSW09 [442], BeldiceanuCP08 [70], Geske05 [198], Bartak02 [43], BeldiceanuC02 [68]   |

Table 14: Works for Concepts of Type CPSystems

| Type      | Keyword | High  | Medium   | Low  |
|-----------|---------|---|--|--|
| CPSystems | Z3      | KoehlerBFFHPSSS21 [285],<br>YounespourAKE19 [538], Menana11 [359],<br>SureshMOK06 [468] | NaderiRR23 [378], VlKHT21 [520],<br>WikarekS19 [530], Zhou97 [554] | ZhangW18 [551], BofilCSV17 [90], BertholdHLMS10 [80],<br>Rodriguez07 [430], Layfield02 [314], Zhou96 [553] |



## 6.6 Concept Type ApplicationAreas

Table 15: Works for Concepts of Type ApplicationAreas

| Type             | Keyword            | High   | Medium  | Low   |
|------------------|--------------------|--|---|---|
| ApplicationAreas | COVID              |  | GeibingerKKMMW21 [192]  | Mehdizadeh-Somarin23 [357], GurPAE23 [220], OujanaAYB22 [399], Lemos21 [315]  |
| ApplicationAreas | HVAC               | LimHTB16 [322], LimBTBB15 [323], GrimesIOS14 [214]   |   |   |
| ApplicationAreas | agriculture        |  |   | AkramNHRSA23 [9], BenderWS21 [73], HamPK21 [223], Astrand21 [25], QinWSLS21 [422], Astrand0F21 [26], MejiaY20 [358]   |
| ApplicationAreas | aircraft           | PohlAK22 [413], WangB20 [524], TranDRFWOVB16 [494], BajestaniB13 [32], LombardiM12 [337], BajestaniB11 [31], FrankK05 [178], ArtiouchineB05 [24] | WangB23 [525], Ham18 [222], Simonis07 [461], SakkoutW00 [436]   | PrataAN23 [420], PovedaAA23 [417], ZarandiASC20 [545], abs-1902-09244 [228], HookerH18 [257], LaborieRSV18 [308], Lombardi10 [330], Laborie09 [306], KovacsB08 [291], KrogLPHJ07 [505], MartinPY01 [355], GruianK98 [217], Darby-DowmanLMZ97 [138], Wallace96 [522], Simonis95 [460], SimonisC95 [462]  |
| ApplicationAreas | automotive         |  | YuraszeckMPV22 [542], LimtanyakulS12 [325], SunLYL10 [467], Lombardi10 [330], BarlattCG08 [41], SchildW00 [438] | PovedaAA23 [417], NaderiRR23 [378], CzerniachowskaWZ23 [136], NaderiBZ22 [377], AntuoriHHEN21 [15], HubnerGSV21 [260], AbreuAPNM21 [141], KoehlerBFFHPSSS21 [285], VlKHT21 [520], BarzegaranZP20 [50], GeibingerMM19 [194], abs-1911-04766 [193], BonfiettiZLM16 [100], Siala15a [456], AlesioNBG14 [154], BeniniBGM06 [77], KovacsV06 [296], Wallace96 [522] |
| ApplicationAreas | cable tree         | KoehlerBFFHPSSS21 [285]  |   | BeldiceanuC94 [67]  |
| ApplicationAreas | car manufacturing  |  | AntuoriHHEN21 [15]  | abs-2312-13682 [408], PerezGSL23 [407], TouatBT22 [490], WallaceY20 [523], ZarandiASC20 [545], FallahiAC20 [170], CauwelaertDMS16 [121], Dejemeppe16 [146], DejemeppeCS15 [147], NovasH12 [390], LimRX04 [321]  |
| ApplicationAreas | container terminal | QinDCS20 [423], SacramentoSP20 [433]   | LaborieRSV18 [308]  | NaderiRR23 [378], WangB23 [525], NaderiBZ22 [377], HeinzNVH22 [240], Lemos21 [315], MokhtarzadehTNF20 [364], TangLWSK18 [473], HookerH18 [257], DoulabiRP16 [159], LipovetzkyBPS14 [326], HachemiGR11 [221], BeldiceanuC02 [68], Bartak02 [43], Bartak02a [42]  |
| ApplicationAreas | crew-scheduling    | ZarandiASC20 [545], PourDERB18 [416]   | BourreauGGLT22 [105], Mason01 [356], Touraivane95 [491]   |   |
| ApplicationAreas | dairies            |  |   |   |
| ApplicationAreas | dairy              | EscobetPQPRA19 [165]   | PrataAN23 [420]   |   |
| ApplicationAreas | datacenter         | HermenierDL11 [245]  |   | GalleguillosKSB19 [183], Madi-WambaLOBM17 [348], IfrimOS12 [261], LetortBC12 [316]  |
| ApplicationAreas | datacentre         |  |   |   |
| ApplicationAreas | day-ahead market   |  |   |   |
| ApplicationAreas | deep space         |  |   | HebrardALLCMR22 [230]   |
| ApplicationAreas | drone              | MontemanniD23a [367], MontemanniD23 [368], Ham18 [222]   |   | ShaikhK23 [451], Astrand21 [25], Astrand0F21 [26], AntuoriHHEN21 [15], ZarandiASC20 [545]   |
| ApplicationAreas | earth observation  | SquillaciPR23 [464], KucukY19 [304], VerfaillieL01 [508]   | BensanaLV99 [79]  | HebrardHJMPV16 [231], PraletLJ15 [419], SimoninAHL15 [459], KelarevaTK13 [277], OddiPCC03 [394]   |
| ApplicationAreas | earth orbit        |  |   | SquillaciPR23 [464]   |
| ApplicationAreas | electroplating     |  | RodosekW98 [428]  | EfthymiouY23 [161], WallaceY20 [523], NovasH12 [390]  |
| ApplicationAreas | emergency service  |  | EvenSH15a [167], TopalogluO11 [488]   | EvenSH15 [166], SakkoutW00 [436]  |
| ApplicationAreas | energy-price       | GrimesIOS14 [214], IfrimOS12 [261]   |   | PrataAN23 [420], EscobetPQPRA19 [165], BenediktSMVH18 [76], He0GLW18 [229], LimHTB16 [322]  |
| ApplicationAreas | farming            |  |   | WinterMMW22 [531], Astrand0F21 [26]   |
| ApplicationAreas | forestry           | HachemiGR11 [221]  |   | Astrand0F21 [26]  |
| ApplicationAreas | hoist              | EfthymiouY23 [161], WallaceY20 [523], RodosekW98 [428]   | NovasH12 [390], BonfiettiLBM11 [94]   | AstrandJZ18 [27], BonfiettiLBM14 [96], BonfiettiM12 [99], BonfiettiLBM12 [95], LombardiBMB11 [332], BeckR03 [59], KorbaaYG99 [287], PapaB98 [404]   |

Table 15: Works for Concepts of Type ApplicationAreas

| Type             | Keyword           | High  | Medium  | Low  |
|------------------|-------------------|---|---|--|
| ApplicationAreas | medical           | ShinBBHO18 [454], Dejemeppe16 [146], WangMD15 [526], TopalogluO11 [488]   | ZarandiASC20 [545], HechingH16 [233], DejemeppeD14 [148], RendlPHPR12 [426]                               | ShaikhK23 [451], AbreuNP23 [143], AkramNHRSA23 [9], IsikYA23 [262], FarsiTM22 [172], YunusogluY22 [540], AbreuN22 [142], GeibingerKKMMW21 [192], AbreuAPNM21 [141], Bedhief21 [63], Lemos21 [315], FallahiAC20 [170], abs-1902-01193 [10], FrimodigS19 [180], Novas19 [388], GurEA19 [560], YounespourAKE19 [538], CappartTSR18 [115], HoYCLLC18 [247], GedikKEK18 [191], TranVNB17 [497], TranVNB17a [498], DoulabiRP16 [159], BridiBLMB16 [107], BoothNB16 [101], BonfiettiLBM14 [96], DoulabiRP14 [158], Lombardi10 [330], Simonis07 [461], Beck99 [51] |
| ApplicationAreas | nurse             | GurPAE23 [220], FarsiTM22 [172], ZarandiASC20 [545], abs-1902-01193 [10], HoYCLLC18 [247], ShinBBHO18 [454], LuoVLBM16 [345], WangMD15 [526], RendlPHPR12 [426], Menana11 [359], Simonis07 [461], Mason01 [356]   | OuelletQ22 [398], GeibingerKKMMW21 [192], GeibingerMM21 [195], YounespourAKE19 [538], FrohnerTR19 [181]   | PerezGSL23 [407], abs-2312-13682 [408], NaderiBZ22 [377], BourreauGLT22 [105], FallahiAC20 [170], FrimodigS19 [180], GedikKEK18 [191], NishikawaSTT18a [385], HookerH18 [257], MusliuSS18 [376], DoulabiRP16 [159], Dejemeppe16 [146], DoulabiRP14 [158], TopalogluO11 [488]   |
| ApplicationAreas | offshore          |   | SubulanC22 [465]  | BoudreaultSLQ22 [104]  |
| ApplicationAreas | operating room    | GurPAE23 [220], NaderiRR23 [378], NaderiBZ22 [377], FarsiTM22 [172], YounespourAKE19 [538], GurEA19 [560], DoulabiRP16 [159], WangMD15 [526], DoulabiRP14 [158]   | ZarandiASC20 [545], HookerH18 [257]   | PerezGSL23 [407], abs-2312-13682 [408], WangB23 [525], GeibingerMM21 [195], MusliuSS18 [376]   |
| ApplicationAreas | oven scheduling   | LacknerMMWW23 [310], LacknerMMWW21 [309]  |   | ColT22 [134]   |
| ApplicationAreas | patient           | GurPAE23 [220], FarsiTM22 [172], GurEA19 [560], FrimodigS19 [180], YounespourAKE19 [538], ShinBBHO18 [454], CappartTSR18 [115], HechingH16 [233], Dejemeppe16 [146], DoulabiRP16 [159], WangMD15 [526], DejemeppeD14 [148], RendlPHPR12 [426], TopalogluO11 [488] | GeibingerKKMMW21 [192]  | AlferiGPS23 [11], NaderiBZ22 [377], AbreuAPNM21 [141], MurinR19 [373], HoYCLLC18 [247], DoulabiRP14 [158], Malapert11 [350], Simonis07 [461]   |
| ApplicationAreas | perfect-square    | BeldiceanuCDP11 [69], BeldiceanuCP08 [70], AggounB93 [7]  |   |  |
| ApplicationAreas | physician         | GeibingerKKMMW21 [192], ShinBBHO18 [454]  | Dejemeppe16 [146]   | GurPAE23 [220], FarsiTM22 [172], FrimodigS19 [180], HookerH18 [257], WangMD15 [526], TopalogluO11 [488]  |
| ApplicationAreas | pipeline          | BegB13 [64], LopesCSM10 [339], Lombardi10 [330], RuggieroBBMA09 [432], MouraSCL08 [371], MouraSCL08a [370], Malik08 [352], ErtlK91 [164]  | ZouZ20 [559], TangLWSK18 [473], MalikMB08 [353], BeniniBGM06 [77], WolinskiKG04 [534], BeldiceanuC94 [67] | EftymiouY23 [161], PopovicCGNC22 [415], HanenKP21 [225], NishikawaSTT19 [386], NishikawaSTT18 [384], NishikawaSTT18a [385], LaborieRSV18 [308], Bonfietti16 [93], GilesH16 [199], GoelSHFS15 [204], SimoninAHL15 [459], BonfiettiLBM14 [96], BeniniLMR11 [78], NovasH10 [389], BarlattCG08 [41], KuchcinskiW03 [302], Wolf03 [532], GruianK98 [217], Darby-DowmanLMZ97 [138], SimonisC95 [462], HookerH18 [257]  |
| ApplicationAreas | radiation therapy | FrimodigS19 [180]   |   |  |
| ApplicationAreas | railway           | SvancaraB22 [469], Lemos21 [315], PourDERB18 [416], CappartS17 [114], Acuna-AgostMFG09 [5], AronssonBK09 [20], Rodriguez07 [430], Geske05 [198], RodriguezDG02 [429], MartinPY01 [355], LammaMM97 [312]   | ZarandiASC20 [545], LaborieRSV18 [308], TangLWSK18 [473], Mason01 [356], BrusoniCLMMT96 [110]             | LuoB22 [346], Godet21a [202], BogaerdTW19 [504], ZhouGL15 [555], BajestaniB15 [33], BajestaniB13 [32], BajestaniB11 [31], AbrilSB05 [4], Wallace96 [522]   |
| ApplicationAreas | real-time pricing |   | He0GLW18 [229], GrimesIOS14 [214]   | LimHTB16 [322]   |
| ApplicationAreas | rectangle-packing | YangSS19 [537], AggounB93 [7]   | LuoB22 [346], Malapert11 [350]  | MossigeGSMC17 [369], DoulabiRP16 [159], VilimLS15 [518], Siala15a [456], BeldiceanuCDP11 [69], SchuttW10 [448], BeldiceanuCP08 [70]  |

Table 15: Works for Concepts of Type ApplicationAreas

| Type             | Keyword        | High  | Medium  | Low  |
|------------------|----------------|---|---|--|
| ApplicationAreas | robot          | IsikYA23 [262], LiFJZLL22 [319], ArmstrongGOS21 [18], Astrand21 [25], KoehlerBFFHPSSS21 [285], WessenCS20 [529], ZarandiASC20 [545], MokhtarzadehTNF20 [364], Lunardi20 [344], MurinR19 [373], abs-1901-07914 [66], BehrensLM19 [65], LaborieRSV18 [308], TranVNB17 [497], MossigeGSMC17 [369], TranVNB17a [498], BoothNB16 [101], NovasH14 [391], NovasH12 [390], BartakSR10 [47], BidotVLB09 [82], ValleMGT03 [502], BeckF98 [56] | PrataAN23 [420], Mehdizadeh-Somarin23 [357], CzerniachowskaWZ23 [136], TouatBT22 [490], YunusogluY22 [540], OujanaAYB22 [399], Astrand0F21 [26], WallaceY20 [523], WikarekS19 [530], NishikawaSTT19 [386], NishikawaSTT18a [385], NishikawaSTT18 [384], Dejemeppe16 [146], VanczaM01 [507], BeckF00 [57], Beck99 [51] | abs-2305-19888 [241], MontemanniD23 [368], HeinzNVH22 [240], FarsiTM22 [172], GeitzGSSW22 [196], MullerMKP22 [372], ColT22 [134], YuraszeckMPV22 [542], HamPK21 [223], ZhangYW21 [550], Godet21a [202], VlkHT21 [520], Bedhief21 [63], FallahiAC20 [170], MengZRZL20 [360], BenediktMH20 [75], MejiaY20 [358], AstrandJZ20 [28], BarzegaranZP20 [50], Novas19 [388], GokgurHO18 [205], Ham18 [222], ZhangW18 [551], AstrandJZ18 [27], ZarandiKS16 [544], TranWDRFOVB16 [499], DoulabiRP16 [159], Derrien15 [151], BajestaniB15 [33]... (Total: 52) |
| ApplicationAreas | satellite      | SquillaciPR23 [464], Godet21a [202], GodetLHS20 [203], KucukY19 [304], LaborieRSV18 [308], HebrardHJMPV16 [231], PraletLJ15 [419], KelarevaTK13 [277], VerfaillieL01 [508], BensanaLV99 [79], PembertonG98 [406]  | Laborie09 [306], FrankK05 [178]   | EfthymiouY23 [161], TouatBT22 [490], Astrand21 [25], Astrand0F21 [26], ZarandiASC20 [545], TranVNB17 [497], Pralet17 [418], TranWDRFOVB16 [499], SimoninAHL15 [459], BessiereHMQW14 [81], HeinzSB13 [239], SimoninAHL12 [458], RuggieroBBMA09 [432], Rodriguez07 [430], OddiPCC03 [394], NuijtenP98 [393]  |
| ApplicationAreas | semiconductor  | ZarandiASC20 [545], MalapertN19 [351], BajestaniB15 [33], NovasH12 [390]  | QinWSLS21 [422], GokgurHO18 [205], Davenport10 [139], KrogtLPHJ07 [505]   | LacknerMMWW23 [310], YuraszeckMPV22 [542], abs-2211-14492 [466], MullerMKP22 [372], ColT22 [134], ZhangJZL22 [548], FanXG21 [171], LacknerMMWW21 [309], HamPK21 [223], Astrand21 [25], PandeyS21a [401], MengZRZL20 [360], NattafM20 [381], TangB20 [472], Novas19 [388], LaborieRSV18 [308], Ham18 [222], KoschB14 [289], TerekhovTDB14 [480], Malapert11 [350], Lombardi10 [330]   |
| ApplicationAreas | ship building  |   |   |  |
| ApplicationAreas | shipping line  |   |   | QinDCS20 [423], LaborieRSV18 [308], KelarevaTK13 [277]   |
| ApplicationAreas | steel cable    |   |   | AalianPG23 [1]   |
| ApplicationAreas | steel mill     | GaySS14 [190], HeinzSSW12 [237], SchausHMCMD11 [437], HentenryckM08 [244], GarganiR07 [184]   |   | abs-2312-13682 [408], PerezGSL23 [407], DoulabiRP16 [159]  |
| ApplicationAreas | super-computer | BorghesiBLMB18 [102], BridiBLMB16 [107], BartoliniBBLM14 [49]   |   | LuoB22 [346], GalleguillosKSB19 [183], Dejemeppe16 [146]   |
| ApplicationAreas | surgery        | GurPAE23 [220], FarsiTM22 [172], GurEA19 [560], YounespourAKE19 [538], DoulabiRP16 [159], WangMD15 [526], DoulabiRP14 [158]   | ZarandiASC20 [545], TopalogluO11 [488]  | AlfieriGPS23 [11], NaderiBZ22 [377], Lemos21 [315], FrimodigS19 [180]  |
| ApplicationAreas | torpedo        | GoldwaserS18 [207], KletzanderM17 [284], GoldwaserS17 [206]   | AntuoriHHEN20 [14]  |  |
| ApplicationAreas | vaccine        |   |   |  |
| ApplicationAreas | yard crane     |   | QinDCS20 [423]  | WallaceY20 [523]   |

## 6.7 Concept Type Industries

Table 16: Works for Concepts of Type Industries

| Type       | Keyword                      | High                    | Medium                | Low  |
|------------|------------------------------|-------------------------|-----------------------|--|
| Industries | aerospace industry           |                         |                       | SchildW00 [438]  |
| Industries | agricultural industry        | WinterMMW22 [531]       |                       |  |
| Industries | automotive industry          |                         | LimtanyakulS12 [325]  |  |
| Industries | chemical industry            |                         | Timpe02 [486]         | CzerniachowskaWZ23 [136], AntuoriHHEN21 [15], BonfiettiZLM16 [100], SchildW00 [438], Wallace96 [522]   |
| Industries | chemical processing industry |                         |                       | LaborieRSV18 [308], GilesH16 [199], LombardiM12 [337], PoderBS04 [412], GilesH16 [199]   |
| Industries | control system industry      |                         |                       | BonfiettiZLM16 [100]   |
| Industries | electricity industry         |                         |                       | PopovicCGNC22 [415], Godet21a [202]  |
| Industries | electronics industry         |                         |                       | LacknerMMWW23 [310], LacknerMMWW21 [309]   |
| Industries | food industry                |                         |                       | OujanaAYB22 [399], GroleazNS20a [215], GroleazNS20 [216], EscobetPQPRA19 [165], HachemiGR11 [221], SimonisC95 [462], Simonis95 [460]   |
| Industries | food-processing industry     |                         |                       | KlankeBYE21 [283], abs-1902-09244 [228]  |
| Industries | manufacturing industry       |                         |                       | PrataAN23 [420], CzerniachowskaWZ23 [136], LacknerMMWW23 [310], WinterMMW22 [531], YuraszeckMPV22 [542], FanXG21 [171], LacknerMMWW21 [309], Mercier-AubinGQ20 [362], TangB20 [472], EscobetPQPRA19 [165], GedikKEK18 [191]                                |
| Industries | mineral industry             |                         |                       | Astrand21 [25], Astrand0F21 [26], AstrandJZ20 [28]   |
| Industries | mining industry              |                         | AalianPG23 [1]        | abs-2402-00459 [383], CampeauG22 [113], Astrand0F21 [26], Astrand21 [25], AstrandJZ20 [28], ThiruvadyWGS14 [484]   |
| Industries | oil industry                 |                         |                       | AbreuNP23 [143], AbreuAPNM21 [141], LopesCSM10 [339]   |
| Industries | packaging industry           |                         |                       | ArmstrongGOS21 [18]  |
| Industries | petro-chemical industry      |                         |                       | LaborieRSV18 [308], GilesH16 [199]   |
| Industries | pharmaceutical industry      |                         |                       | YuraszeckMCCR23 [543], CzerniachowskaWZ23 [136], GeibingerKKMMW21 [192], NovaraNH16 [387]  |
| Industries | potash industry              |                         |                       | Astrand21 [25], Astrand0F21 [26], AstrandJZ20 [28], AstrandJZ18 [27]   |
| Industries | power industry               |                         |                       | FrostD98 [182]   |
| Industries | process industry             |                         | Timpe02 [486]         | HeinzSSW12 [237], Wallace96 [522]  |
| Industries | retail industry              |                         |                       | ChapadosJR11 [125]   |
| Industries | services industry            |                         |                       | DoomsH08 [157]   |
| Industries | ship repair industry         |                         |                       | BoudreaultSLQ22 [104]  |
| Industries | steel industry               |                         | DavenportKRSH07 [140] | LacknerMMWW23 [310], KimCMLLP23 [282], IsikYA23 [262], OujanaAYB22 [399], LacknerMMWW21 [309], abs-1902-09244 [228], GoldwaserS18 [207], KletzanderM17 [284], GoldwaserS17 [206], HeinzSSW12 [237], SchausHMCMD11 [437], GrimesH10 [210], GarganiR07 [184] |
| Industries | steel making industry        |                         |                       |  |
| Industries | textile industry             | Mercier-AubinGQ20 [362] |                       | ZarandiASC20 [545], BessiereHMqw14 [81]  |
| Industries | tourism industry             |                         |                       | LiuCGM17 [328]   |

## 6.8 Concept Type Benchmarks

Table 17: Works for Concepts of Type Benchmarks

| Type       | Keyword            | High   | Medium  | Low  |
|------------|--------------------|--|---|--|
| Benchmarks | CSPLib             | Siala15a [456], SchausHMCMD11 [437], GarganiR07 [184]  | LaborieRSV18 [308], CappartTSR18 [115], MossigeGSMC17 [369], NovaraNH16 [387], HeinzSSW12 [237]   | LiuLH19 [327], GelainPRVW17 [197], GaySS14 [190], RendlPHPR12 [426], HentenryckM08 [244], NethercoteSBBDT07 [382]  |
| Benchmarks | Roadef             | Siala15a [456]   | LetortCB15 [318], LetortCB13 [317], LetortBC12 [316]  | CzerniachowskaWZ23 [136], HanenKP21 [225], Lemos21 [315], Polo-MejiaALB20 [414], MalapertN19 [351], Tesch18 [482], OuelletQ18 [397], Tesch16 [481], Menana11 [359], Acuna-AgostMFG09 [5]   |
| Benchmarks | benchmark          | IsikYA23 [262], TardivoDFMP23 [474], AlfieriGPS23 [11], JuvinHHL23 [268], ShaikhK23 [451], LacknerMMWW23 [310], PovedaAA23 [417], Bit-Monnot23 [84], NaderiRR23 [378], AbreuNP23 [143], TasselGS23 [475], abs-2306-05747 [476], YuraszeckMCCR23 [543], BoudreaultSLQ22 [104], ZhangJZL22 [548], OuelletQ22 [398], abs-2211-14492 [466], ColT22 [134], TouatBT22 [490], AbreuN22 [142], MullerMKP22 [372], LiFJZLL22 [319], WinterMMW22 [531], Teppan22 [478], HamPK21 [223], abs-2102-08778 [132], KoehlerBFFHPSSS21 [285], PandeyS21a [401], LacknerMMWW21 [309]... (Total: 86) | abs-2402-00459 [383], AkramNHRSA23 [9], YuraszeckMC23 [541], MontemanniD23a [367], KameugneFND23 [273], abs-2305-19888 [241], FetgoD22 [174], OujanaAYB22 [399], NaderiBZ22 [377], ZhangBB22 [549], BourreauGGLT22 [105], HeinzNVH22 [240], Astrand21 [25], AbreuAPNM21 [141], KovacsTKSG21 [297], Lunardi20 [344], MejiaY20 [358], SacramentoSP20 [433], BenediktMH20 [75], AntuoriHHEN20 [14], GroleazNS20 [216], BadicaBI20 [29], MengZRZL20 [360], Novas19 [388], NishikawaSTT19 [386], GeibingerMM19 [194], ArbaouiY18 [17], NishikawaSTT18 [384], FahimiOQ18 [168]... (Total: 73) | PrataAN23 [420], CzerniachowskaWZ23 [136], MontemanniD23 [368], EfthymiouY23 [161], KimCMLLP23 [282], SquillaciPR23 [464], SvancaraB22 [469], JungblutK22 [267], PohlAK22 [413], SubulanC22 [465], YuraszeckMPV22 [542], YunusogluY22 [540], ArmstrongGOS22 [19], Astrand0F21 [26], HubnerGSV21 [260], KlankeBYE21 [283], VlKHT21 [520], ArmstrongGOS21 [18], LunardiBLRV20 [343], NattafM20 [381], AstrandJZ20 [28], ZarandiASC20 [545], QinDCS20 [423], ZouZ20 [559], abs-1901-07914 [66], BogaerdTW19 [504], FrohnerTR19 [181], MalapertN19 [351], KucukY19 [304]... (Total: 111)             |
| Benchmarks | bitbucket          |  | TardivoDFMP23 [474], Dejemeppe16 [146]  | CauwelaertLS18 [122], He0GLW18 [229], CappartTSR18 [115], CappartS17 [114], CauwelaertDMS16 [121], GayHLS15 [187], GayHS15a [189], DejemeppeCS15 [147], GayHS15 [188], DejemeppeD14 [148], HoundjiSWD14 [259]  |
| Benchmarks | generated instance | IsikYA23 [262], LuoB22 [346], abs-1911-04766 [193]   | abs-2312-13682 [408], PerezGSL23 [407], Godet21a [202], MejiaY20 [358], GodetLHS20 [203], Dejemeppe16 [146], Madi-WambaB16 [347], KelbelH11 [278], SchausHMCMD11 [437]  | abs-2402-00459 [383], abs-2305-19888 [241], EfthymiouY23 [161], BoudreaultSLQ22 [104], ColT22 [134], YuraszeckMPV22 [542], HeinzNVH22 [240], YunusogluY22 [540], ZhangBB22 [549], abs-2211-14492 [466], TouatBT22 [490], abs-2102-08778 [132], AbreuAPNM21 [141], GeibingerMM21 [195], HanenKP21 [225], Astrand21 [25], AbohashimaEG21 [2], Astrand0F21 [26], MokhtarzadehTNF20 [364], AntuoriHHEN20 [14], LunardiBLRV20 [343], BenediktMH20 [75], Lunardi20 [344], GeibingerMM19 [194], MalapertN19 [351], YangSS19 [537], KucukY19 [304], MusliuSS18 [376], BenediktSMVH18 [76]... (Total: 50) |
| Benchmarks | github             | KoehlerBFFHPSSS21 [285], Godet21a [202], Lemos21 [315]   | TardivoDFMP23 [474], PovedaAA23 [417], JungblutK22 [267], BoudreaultSLQ22 [104], HamPK21 [223], GodetLHS20 [203], BenediktMH20 [75], LunardiBLRV20 [343], Siala15a [456]  | abs-2402-00459 [383], YuraszeckMC23 [541], SquillaciPR23 [464], JuvinHHL23 [268], YuraszeckMCCR23 [543], Bit-Monnot23 [84], abs-2306-05747 [476], NaderiRR23 [378], TasselGS23 [475], LuoB22 [346], OuelletQ22 [398], ColT22 [134], YuraszeckMPV22 [542], GeitzGSSW22 [196], MullerMKP22 [372], KovacsTKSG21 [297], GeibingerMM21 [195], VlKHT21 [520], AbohashimaEG21 [2], WangB20 [524], Polo-MejiaALB20 [414], FallahiAC20 [170], Lunardi20 [344], ColT19 [133], BehrensLM19 [65], BadicaBIL19 [30], abs-1901-07914 [66], abs-1911-04766 [193], MurinR19 [373]... (Total: 38)                 |
| Benchmarks | gitlab             |  | HeinzNVH22 [240]  | abs-2305-19888 [241], BoudreaultSLQ22 [104], AntuoriHHEN21 [15], AntuoriHHEN20 [14]  |

Table 17: Works for Concepts of Type Benchmarks

| Type       | Keyword             | High   | Medium  | Low   |
|------------|---------------------|--|---|---|
| Benchmarks | industrial instance | LuoB22 [346], AntuoriHHEN20 [14]   | BonfiettiZLM16 [100], BonfiettiLBM14 [96]   | TasselGS23 [475], EfthymiouY23 [161], PovedaAA23 [417], abs-2306-05747 [476], OujanaAYB22 [399], Mercier-AubinGQ20 [362], NattafM20 [381], GroleazNS20 [216], MalapertN19 [351], BofilGSV15 [92], BofilEGPSV14 [91], BonfiettiM12 [99], LombardiBMB11 [332], BonfiettiLBM11 [94]  |
| Benchmarks | industrial partner  | BoudreaultSLQ22 [104], Lunardi20 [344], Dejemeppe16 [146]  | LacknerMMWW23 [310], ArmstrongGOS21 [18]  | WinterMMW22 [531], VlkHT21 [520], LacknerMMWW21 [309], GroleazNS20a [215], Mercier-AubinGQ20 [362], abs-1911-04766 [193], GeibingerMM19 [194], MossigeGSMC17 [369], HebrardHJMPV16 [231], LipovetzkyBPS14 [326], LimtanyakulS12 [325], Malapert11 [350], KovacsV06 [296], KovacsV04 [295]   |
| Benchmarks | industry partner    | BurtLPS15 [111], LipovetzkyBPS14 [326]   |   | WinterMMW22 [531], LuoB22 [346], ArmstrongGOS21 [18], abs-1902-09244 [228]  |
| Benchmarks | instance generator  | LacknerMMWW23 [310], LacknerMMWW21 [309]   | GoldwaserS18 [207]  | abs-2402-00459 [383], ArmstrongGOS21 [18], Lunardi20 [344], abs-1911-04766 [193], GoldwaserS17 [206], YoungFS17 [539], Dejemeppe16 [146], BeniniLMR11 [78], abs-1009-0347 [443], Lombardi10 [330], RuggieroBBMA09 [432], LombardiM09 [333], HeipckeCCS00 [242]  |
| Benchmarks | random instance     | LacknerMMWW21 [309], WallaceY20 [523], Dejemeppe16 [146]   | LacknerMMWW23 [310], EfthymiouY23 [161], WangB23 [525], LetortCB15 [318], KelbelH11 [278]   | Mehdizadeh-Somarin23 [357], OuelletQ22 [398], abs-2211-14492 [466], MullerMKP22 [372], VlkHT21 [520], KlankeBYE21 [283], Godet21a [202], HanenKP21 [225], AntuoriHHEN20 [14], LunardiBLRV20 [343], Lunardi20 [344], BenediktMH20 [75], BenediktSMVH18 [76], FahimiOQ18 [168], Hooker17 [254], MossigeGSMC17 [369], CappartS17 [114], Madi-WambaB16 [347], Siala15a [456], KameugneFSN14 [275], DerrienP14 [152], DerrienPZ14 [153], LetortCB13 [317], LimtanyakulS12 [325], BillautHL12 [83], LetortBC12 [316], BartakS11 [46], Hooker06 [252], Hooker05 [250]... (Total: 32)                     |
| Benchmarks | real-life           | GurPAE23 [220], SubulanC22 [465], WinterMMW22 [531], Astrand21 [25], HubnerGSV21 [260], QinDCS20 [423], GurEA19 [560], WangMD15 [526], BartakSR10 [47], BartakCS10 [45], Bartak02a [42], MartinPY01 [355]  | LacknerMMWW23 [310], OujanaAYB22 [399], Astrand0F21 [26], LacknerMMWW21 [309], KlankeBYE21 [283], Lemos21 [315], Lunardi20 [344], FallahiAC20 [170], abs-1911-04766 [193], PourDERB18 [416], MusliuSS18 [376], BartakV15 [48], GaySS14 [190], LimtanyakulS12 [325], RuggieroBBMA09 [432], Tsang03 [501], NuijtenP98 [393], SimonisC95 [462], DincbasSH90 [156]  | PrataAN23 [420], EfthymiouY23 [161], PovedaAA23 [417], IsikYA23 [262], GeitzGSSW22 [196], CampeauG22 [113], LuoB22 [346], ColT22 [134], NaderiBZ22 [377], Teppan22 [478], BoudreaultSLQ22 [104], YunusogluY22 [540], YuraszeckMPV22 [542], GeibingerMM21 [195], Godet21a [202], Bedhief21 [63], abs-2102-08778 [132], WallaceY20 [523], GodetLHS20 [203], SacramentoSP20 [433], ZarandiASC20 [545], AstrandJZ20 [28], GeibingerMM19 [194], YounespourAKE19 [538], MurinR19 [373], GokgurHO18 [205], Laborie18a [307], HookerH18 [257], BorghesiBLMB18 [102]... (Total: 74)                        |
| Benchmarks | real-world          | abs-2305-19888 [241], HeinzNVH22 [240], YunusogluY22 [540], ColT22 [134], KoehlerBFFHPSSS21 [285], Astrand21 [25], GeibingerMM21 [195], Lemos21 [315], Lunardi20 [344], MokhtarzadehTNF20 [364], abs-1911-04766 [193], GeibingerMM19 [194], abs-1902-09244 [228], FrohnerTR19 [181], Dejemeppe16 [146], MelgarejoLS15 [8], EvenSH15 [166], EvenSH15a [167], RendPHPR12 [426], Lombardi10 [330], MouraSCL08a [370], Beck99 [51] | PrataAN23 [420], IsikYA23 [262], abs-2306-05747 [476], AbreuNP23 [143], TasselGS23 [475], AalianPG23 [1], WangB23 [525], YuraszeckMCCR23 [543], SvancaraB22 [469], OujanaAYB22 [399], LuoB22 [346], MullerMKP22 [372], ArmstrongGOS21 [18], WessenCS20 [529], ZarandiASC20 [545], TangB20 [472], WallaceY20 [523], AstrandJZ20 [28], ParkUJR19 [405], YounespourAKE19 [538], FrimodigS19 [180], RiahiNS018 [427], HookerH18 [257], HoYCLCLC18 [247], LaborieRSV18 [308], PourDERB18 [416], ShinBBHO18 [454], TranVNB17 [497], HechingH16 [233]... (Total: 40) | abs-2402-00459 [383], KimCMLLP23 [282], abs-2312-13682 [408], PovedaAA23 [417], JuvinHL23 [269], Bit-Monnot23 [84], TardivoDFMP23 [474], CzerniachowskaWZ23 [136], PerezGSL23 [407], ShaikhK23 [451], BourreauGLT22 [105], CampeauG22 [113], JungblutK22 [267], AbreuN22 [142], ArmstrongGOS22 [19], SubulanC22 [465], FetgoD22 [174], PohlAK22 [413], BoudreaultSLQ22 [104], GeitzGSSW22 [196], GeibingerKKMMW21 [192], AbohashimaEG21 [2], KovacsTKSG21 [297], Astrand0F21 [26], abs-2102-08778 [132], AbreuAPNM21 [141], HillTV21 [246], BadicaBI20 [29], SacramentoSP20 [433]... (Total: 101) |

Table 17: Works for Concepts of Type Benchmarks

| Type       | Keyword                | High  | Medium                                 | Low  |
|------------|------------------------|---|--|--|
| Benchmarks | supplementary material | FarsiTM22 [172], Lunardi20 [344],<br>MejiaY20 [358] | MontemanniD23 [368], SchuttFSW13 [445] | JuvinHHL23 [268], abs-2306-05747 [476], TasselGS23 [475],<br>WinterMMW22 [531], ColT22 [134], BoudreaultSLQ22 [104],<br>YunusogluY22 [540], KovacsTKSG21 [297],<br>ArmstrongGOS21 [18], AntuoriHHEN21 [15],<br>LacknerMMWW21 [309], MengZRZL20 [360] |
| Benchmarks | zenodo                 | LacknerMMWW23 [310], SacramentoSP20 [433]           |  | KimCMLLP23 [282], WinterMMW22 [531],<br>ArmstrongGOS21 [18]  |

## 6.9 Concept Type Algorithms

Table 18: Works for Concepts of Type Algorithms

| Type       | Keyword             | High  | Medium   | Low   |
|------------|---------------------|---|--|---|
| Algorithms | bi-partite matching |   |  | HookerH18 [257], Simonis07 [461], Kumar03 [303]   |
| Algorithms | edge-finder         | KameugneFND23 [273], FetgoD22 [174], GingrasQ16 [200], KameugneFSN14 [275], Lombardi10 [330], BaptisteP00 [38]  | OuelletQ13 [396], KelbelH11 [278], PapaB98 [404]   | BaptisteB18 [35], BonfiettiZLM16 [100], GuSS13 [218], SchuttFSW11 [444], HeckmanB11 [234], BidotVLB09 [82], SchuttFSW09 [442], BeckW07 [62], BeckW05 [61], BeckR03 [59], ValleMGT03 [502], SakkoutW00 [436], BaptisteP97 [37], Zhou97 [554]   |
| Algorithms | edge-finding        | KameugneFND23 [273], JuvinHHL23 [268], TardivoDFMP23 [474], OuelletQ22 [398], FetgoD22 [174], YangSS19 [537], GokgurHO18 [205], BaptisteB18 [35], HookerH18 [257], FahimiOQ18 [168], KreterSS17 [299], Dejemeppe16 [146], Derrien15 [151], Kameugne15 [271], GayHS15a [189], KameugneFSN14 [275], OuelletQ13 [396], SchuttFS13a [440], SchuttFSW11 [444], KameugneFSN11 [274], ClercqPBJ11 [129], Vilim11 [515], Malapert11 [350], Vilim09 [513], ArtiouchineB05 [24], VilimBC05 [517], Hooker05 [250], VilimBC04 [516], Laborie03 [305]... (Total: 38) | BoudreaultSLQ22 [104], LaborieRSV18 [308], Tesch18 [482], GingrasQ16 [200], CauwelaertDMS16 [121], LetortCB15 [318], DejemeppeCS15 [147], Siala15a [456], LetortCB13 [317], LombardiM12 [337], LetortBC12 [316], BartakSR10 [47], Lombardi10 [330], LiessM08 [320], HoeveGSL07 [506], MonetteDD07 [365], Vilim04 [511], Bartak02 [43], SchildW00 [438], Zhou97 [554] | CampeauG22 [113], Astrand21 [25], Godet21a [202], WallaceY20 [523], OuelletQ18 [397], CauwelaertLS18 [122], NattafAL17 [380], Tesch16 [481], SialaAH15 [457], GayHLS15 [187], DerrienP14 [152], GuSS13 [218], OzturkTHO13 [400], ChuGNSW13 [126], HeinzSB13 [239], LimtanyakulS12 [325], BeldiceanuCDP11 [69], HeckmanB11 [234], KelbelH11 [278], GrimesH11 [211], KovacsB11 [292], SchuttW10 [448], GrimesH10 [210], Vilim09a [514], abs-0907-0939 [410], GrimesHM09 [213], BidotVLB09 [82], BeldiceanuCP08 [70], Malik08 [352]... (Total: 48) |
| Algorithms | energetic reasoning | TardivoDFMP23 [474], FetgoD22 [174], OuelletQ22 [398], HanenKP21 [225], CauwelaertLS18 [122], OuelletQ18 [397], Tesch18 [482], NattafAL17 [380], Tesch16 [481], GayHS15a [189], NattafAL15 [379], DerrienP14 [152], SchuttFS13a [440], LimtanyakulS12 [325], HeinzS11 [238], Vilim11 [515], Lombardi10 [330], Laborie03 [305]   | KameugneFND23 [273], KameugneFGOQ18 [272], SchuttFS13 [441]  | IsikYA23 [262], BoudreaultSLQ22 [104], ArmstrongGOS21 [18], YangSS19 [537], GokgurHO18 [205], Laborie18a [307], HookerH18 [257], BofillCSV17 [90], GingrasQ16 [200], LetortCB15 [318], Derrien15 [151], KameugneFSN14 [275], LetortCB13 [317], OuelletQ13 [396], LombardiM12 [337], LahimerLH11 [311], ClercqPBJ11 [129], BeldiceanuCDP11 [69], Malapert11 [350], abs-0907-0939 [410], Vilim09 [513], Vilim09a [514], Limtanyakul07 [324], WolfS05 [533], BaptisteP00 [38], PapaB98 [404]   |
| Algorithms | max-flow            |   | LopesCSM10 [339], MouraSCL08 [371], Muscettola02 [375]   | FanXG21 [171], ZarandiASC20 [545], Kumar03 [303]  |
| Algorithms | not-first           | KameugneFND23 [273], KameugneFGOQ18 [272], FahimiOQ18 [168], Dejemeppe16 [146], GayHS15a [189], SchuttFSW11 [444], Malapert11 [350], VilimBC05 [517], ArtiouchineB05 [24], Demasse03 [149], Beck99 [51]   | TardivoDFMP23 [474], FetgoD22 [174], GokgurHO18 [205], HookerH18 [257], OuelletQ18 [397], Kameugne15 [271], DejemeppeCS15 [147], KameugneFSN14 [275], OuelletQ13 [396], SchuttW10 [448], BartakSR10 [47], Lombardi10 [330], MonetteDD07 [365], VilimBC04 [516], Wolf03 [532], BeckF00 [57]   | JuvinHHL23 [268], OuelletQ22 [398], BoudreaultSLQ22 [104], Astrand21 [25], CauwelaertLS18 [122], Tesch16 [481], CauwelaertDMS16 [121], ChuGNSW13 [126], LimtanyakulS12 [325], KameugneFSN11 [274], Vilim09 [513], Laborie03 [305], SourdN00 [463]   |
| Algorithms | not-last            | TardivoDFMP23 [474], KameugneFND23 [273], FahimiOQ18 [168], KameugneFGOQ18 [272], OuelletQ18 [397], Dejemeppe16 [146], GayHS15a [189], Malapert11 [350], SchuttW10 [448], ArtiouchineB05 [24], SchuttWS05 [449], Vilim05 [512], VilimBC05 [517], Vilim04 [511], Wolf03 [532], Demasse03 [149], Beck99 [51]  | FetgoD22 [174], GokgurHO18 [205], Tesch18 [482], Kameugne15 [271], DejemeppeCS15 [147], KameugneFSN14 [275], SchuttFS13a [440], OuelletQ13 [396], SchuttFSW11 [444], Vilim11 [515], KameugneFSN11 [274], BartakSR10 [47], Lombardi10 [330], MonetteDD07 [365], VilimBC04 [516], BeckF00 [57]   | JuvinHHL23 [268], BoudreaultSLQ22 [104], GeitzGSSW22 [196], OuelletQ22 [398], Astrand21 [25], GodetLHS20 [203], YangSS19 [537], CauwelaertLS18 [122], HookerH18 [257], CauwelaertDMS16 [121], Tesch16 [481], ChuGNSW13 [126], LimtanyakulS12 [325], GrimesHM09 [213], MonetteDH09 [366], Vilim09a [514], Vilim09 [513], BocewiczBB09 [89], WolfS05 [533], Laborie03 [305], Vilim03 [510]  |



Table 18: Works for Concepts of Type Algorithms

| Type       | Keyword      | High  | Medium  | Low  |
|------------|--------------|---|---|--|
| Algorithms | sweep        | Tesch18 [482], Tesch16 [481], BonfiettiZLM16 [100], SimoninAHL15 [459], NattafAL15 [379], LetortCB15 [318], GayHS15 [188], Derrien15 [151], DerrienPZ14 [153], LetortCB13 [317], SimoninAHL12 [458], LetortBC12 [316], ClercqPBJ11 [129], Malapert11 [350], abs-0907-0939 [410], BeldiceanuP07 [71], Wolf03 [532], BeldiceanuC02 [68] | FahimiOQ18 [168], GoldwaserS18 [207], GayHS15a [189], AronssonBK09 [20], PoderB08 [411], WolfS05 [533]  | KameugneFND23 [273], TardivoDFMP23 [474], HebrardALLCMR22 [230], GeitzGSSW22 [196], FetgoD22 [174], OuelletQ22 [398], Godet21a [202], FallahiAC20 [170], KameugneFGOQ18 [272], CauwelaertLS18 [122], Madi-WambaLOBM17 [348], GingrasQ16 [200], Dejemeppe16 [146], BartakV15 [48], EvenSH15 [166], EvenSH15a [167], DerrienP14 [152], BonfiettiLBM14 [96], GaySS14 [190], OuelletQ13 [396], BeldiceanuCDP11 [69], Vilim11 [515], LombardiM10a [334], BartakSR10 [47], Lombardi10 [330], BeldiceanuCP08 [70], KovacsB08 [291], Simonis07 [461], VilimBC05 [517], Vilim04 [511] |
| Algorithms | time-tabling | TardivoDFMP23 [474], ShaikhK23 [451], OuelletQ22 [398], Lemos21 [315], DemirovicS18 [150], FahimiOQ18 [168], GayHS15a [189], OuelletQ13 [396], Menana11 [359], HeinzS11 [238], Laborie03 [305], ElkhayariGJ02a [163], Wallace96 [522]   | Godet21a [202], Astrand21 [25], WallaceY20 [523], ZarandiASC20 [545], abs-1902-01193 [10], HookerH18 [257], CauwelaertLS18 [122], Tesch18 [482], OuelletQ18 [397], Derrien15 [151], GayHS15 [188], BofillGSV15 [92], Siala15a [456], Vilim11 [515], Demassey03 [149], Bartak02 [43] | PrataAN23 [420], KameugneFND23 [273], LacknerMMWW23 [310], AbreuNP23 [143], TouatBT22 [490], FarsiTM22 [172], SvancaraB22 [469], FetgoD22 [174], GeibingerMM21 [195], MokhtarzadehTNF20 [364], GodetLHS20 [203], LiuLH19 [327], abs-1911-04766 [193], KucukY19 [304], GeibingerMM19 [194], KameugneFGOQ18 [272], AstrandJZ18 [27], BaptisteB18 [35], GoldwaserS18 [207], CohenHB17 [131], YoungFS17 [539], ZarandiKS16 [544], Tesch16 [481], LuoVLBM16 [345], LimBTBB15 [323], WangMD15 [526], VilimLS15 [518], GayHLS15 [187], BofillEGPSV14 [91]... (Total: 50)            |

## References

- [1] Younes Aalian, Gilles Pesant, and Michel Gamache. Optimization of short-term underground mine planning using constraint programming. In Roland H. C. Yap, editor, *29th International Conference on Principles and Practice of Constraint Programming, CP 2023, August 27-31, 2023, Toronto, Canada*, volume 280 of *LIPICs*, pages 6:1–6:16. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2023. URL: <https://doi.org/10.4230/LIPICs.CP.2023.6>, doi:10.4230/LIPICs.CP.2023.6.
- [2] Hanaa Abohashima, Amr B. Eltawil, and Mohamed S. Gheith. A mathematical programming model and a firefly-based heuristic for real-time traffic signal scheduling with physical constraints. *IEEE Access*, 9:128314–128327, 2021. doi:10.1109/ACCESS.2021.3112600.
- [3] Levi R. Abreu, Bruno A. Prata, Marcelo S. Nagano, and Jose M. Framinan. A constraint programming-based iterated greedy algorithm for the open shop with sequence-dependent processing times and makespan minimization. *Computers & Operations Research*, 160:106386, 2023. URL: <https://www.sciencedirect.com/science/article/pii/S0305054823002502>, doi:<https://doi.org/10.1016/j.cor.2023.106386>.
- [4] Montserrat Abril, Miguel A. Salido, and Federico Barber. Distributed constraints for large-scale scheduling problems. In Peter van Beek, editor, *Principles and Practice of Constraint Programming - CP 2005, 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005, Proceedings*, volume 3709 of *Lecture Notes in Computer Science*, page 837. Springer, 2005. doi:10.1007/11564751\_75.
- [5] Rodrigo Acuna-Agost, Philippe Michelon, Dominique Feillet, and Serigne Gueye. Constraint programming and mixed integer linear programming for rescheduling trains under disrupted operations. In Willem Jan van Hoes and John N. Hooker, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 6th International Conference, CPAIOR 2009, Pittsburgh, PA, USA, May 27-31, 2009, Proceedings*, volume 5547 of *Lecture Notes in Computer Science*, pages 312–313. Springer, 2009. doi:10.1007/978-3-642-01929-6\_24.
- [6] Joseph Adams, Egon Balas, and Daniel Zawack. The shifting bottleneck procedure for job shop scheduling. *Management Science*, 34(3):391–401, March 1988. URL: <http://dx.doi.org/10.1287/mnsc.34.3.391>, doi:10.1287/mnsc.34.3.391.
- [7] Abderrahmane Aggoun and Nicolas Beldiceanu. Extending CHIP in order to solve complex scheduling and placement problems. *Mathematical and Computer Modelling*, 17(7):57–73, 1993. URL: <https://www.sciencedirect.com/science/article/pii/089571779390068A>, doi:[https://doi.org/10.1016/0895-7177\(93\)90068-A](https://doi.org/10.1016/0895-7177(93)90068-A).
- [8] Penélope Aguiar-Melgarejo, Philippe Laborie, and Christine Solnon. A time-dependent no-overlap constraint: Application to urban delivery problems. In Laurent Michel, editor, *Integration of AI and OR Techniques in Constraint Programming - 12th International Conference, CPAIOR 2015, Barcelona, Spain, May 18-22, 2015, Proceedings*, volume 9075 of *Lecture Notes in Computer Science*, pages 1–17. Springer, 2015. doi:10.1007/978-3-319-18008-3\_1.
- [9] Bilal Omar Akram, Nor Kamariah Noordin, Fazirulhisyam Hashim, Mohd Fadlee A. Rasid, Mustafa Ismael Salman, and Abdulrahman M. Abdulghani. Joint scheduling and routing optimization for deterministic hybrid traffic in time-sensitive networks using constraint programming. *IEEE Access*, 11:142764–142779, 2023. doi:10.1109/ACCESS.2023.3343409.
- [10] O. M. Alade and A. O. Amusat. Solving nurse scheduling problem using constraint programming technique. *CoRR*, abs/1902.01193, 2019. URL: <http://arxiv.org/abs/1902.01193>, arXiv:1902.01193.
- [11] Arianna Alfieri, Michele Garraffa, Erica Pastore, and Fabio Salassa. Permutation flowshop problems minimizing core waiting time and core idle time. *Computers and Industrial Engineering*, 176:108983, 2023. URL: <https://www.sciencedirect.com/science/article/pii/S0360835223000074>, doi:<https://doi.org/10.1016/j.cie.2023.108983>.

- [12] Samira Alizdeh and Shahram Saeidi. Fuzzy project scheduling with critical path including risk and resource constraints using linear programming. *Int. J. Adv. Intell. Paradigms*, 16(1):4–17, 2020. doi:10.1504/IJAIP.2020.106687.
- [13] Ola Angelsmark and Peter Jonsson. Some observations on durations, scheduling and allen’s algebra. In Rina Dechter, editor, *Principles and Practice of Constraint Programming - CP 2000, 6th International Conference, Singapore, September 18-21, 2000, Proceedings*, volume 1894 of *Lecture Notes in Computer Science*, pages 484–488. Springer, 2000. doi:10.1007/3-540-45349-0\\_35.
- [14] Valentin Antuori, Emmanuel Hebrard, Marie-José Huguet, Siham Essodaigui, and Alain Nguyen. Leveraging reinforcement learning, constraint programming and local search: A case study in car manufacturing. In Helmut Simonis, editor, *Principles and Practice of Constraint Programming - 26th International Conference, CP 2020, Louvain-la-Neuve, Belgium, September 7-11, 2020, Proceedings*, volume 12333 of *Lecture Notes in Computer Science*, pages 657–672. Springer, 2020. doi:10.1007/978-3-030-58475-7\\_38.
- [15] Valentin Antuori, Emmanuel Hebrard, Marie-José Huguet, Siham Essodaigui, and Alain Nguyen. Combining monte carlo tree search and depth first search methods for a car manufacturing workshop scheduling problem. In Laurent D. Michel, editor, *27th International Conference on Principles and Practice of Constraint Programming, CP 2021, Montpellier, France (Virtual Conference), October 25-29, 2021*, volume 210 of *LIPICs*, pages 14:1–14:16. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2021. URL: <https://doi.org/10.4230/LIPICs.CP.2021.14>, doi:10.4230/LIPICs.CP.2021.14.
- [16] David Applegate and William Cook. A computational study of the job-shop scheduling problem. *ORSA Journal on Computing*, 3(2):149–156, May 1991. URL: <http://dx.doi.org/10.1287/ijoc.3.2.149>, doi:10.1287/ijoc.3.2.149.
- [17] Taha Arbaoui and Farouk Yalaoui. Solving the unrelated parallel machine scheduling problem with additional resources using constraint programming. In Ngoc Thanh Nguyen, Duong Hung Hoang, Tzung-Pei Hong, Hoang Pham, and Bogdan Trawinski, editors, *Intelligent Information and Database Systems - 10th Asian Conference, ACIIDS 2018, Dong Hoi City, Vietnam, March 19-21, 2018, Proceedings, Part II*, volume 10752 of *Lecture Notes in Computer Science*, pages 716–725. Springer, 2018. doi:10.1007/978-3-319-75420-8\\_67.
- [18] Eddie Armstrong, Michele Garraffa, Barry O’Sullivan, and Helmut Simonis. The hybrid flexible flowshop with transportation times. In Laurent D. Michel, editor, *27th International Conference on Principles and Practice of Constraint Programming, CP 2021, Montpellier, France (Virtual Conference), October 25-29, 2021*, volume 210 of *LIPICs*, pages 16:1–16:18. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2021. URL: <https://doi.org/10.4230/LIPICs.CP.2021.16>, doi:10.4230/LIPICs.CP.2021.16.
- [19] Eddie Armstrong, Michele Garraffa, Barry O’Sullivan, and Helmut Simonis. A two-phase hybrid approach for the hybrid flexible flowshop with transportation times. In Pierre Schaus, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 19th International Conference, CPAIOR 2022, Los Angeles, CA, USA, June 20-23, 2022, Proceedings*, volume 13292 of *Lecture Notes in Computer Science*, pages 1–13. Springer, 2022. doi:10.1007/978-3-031-08011-1\\_1.
- [20] Martin Aronsson, Markus Bohlin, and Per Kreuger. MILP formulations of cumulative constraints for railway scheduling - A comparative study. In Jens Clausen and Gabriele Di Stefano, editors, *ATMOS 2009 - 9th Workshop on Algorithmic Approaches for Transportation Modeling, Optimization, and Systems, IT University of Copenhagen, Denmark, September 10, 2009*, volume 12 of *OASICS*. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, Germany, 2009. URL: <http://drops.dagstuhl.de/opus/volltexte/2009/2141>.
- [21] Christian Artigues, Sana Belmokhtar, and Dominique Feillet. A new exact solution algorithm for the job shop problem with sequence-dependent setup times. In Jean-Charles Régin and Michel Rueher, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, First International Conference, CPAIOR 2004, Nice, France, April 20-22, 2004, Proceedings*, volume 3011 of *Lecture Notes in Computer Science*, pages 37–49. Springer, 2004. doi:10.1007/978-3-540-24664-0\\_3.

- [22] Christian Artigues, Emmanuel Hebrard, Alain Quilliot, and H       Toussaint. Multi-mode RCPSP with safety margin maximization: Models and algorithms. In Greg H. Parlier, Federico Liberatore, and Marc Demange, editors, *Proceedings of the 10th International Conference on Operations Research and Enterprise Systems, ICORES 2021, Online Streaming, February 4-6, 2021*, pages 129–136. SCITEPRESS, 2021. doi:10.5220/0010190101290136.
- [23] Christian Artigues and Fran       Roubellat. A polynomial activity insertion algorithm in a multi-resource schedule with cumulative constraints and multiple modes. *Eur. J. Oper. Res.*, 127(2):297–316, 2000. doi:10.1016/S0377-2217(99)00496-8.
- [24] Konstantin Artiouchine and Philippe Baptiste. Inter-distance constraint: An extension of the all-different constraint for scheduling equal length jobs. In Peter van Beek, editor, *Principles and Practice of Constraint Programming - CP 2005, 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005, Proceedings*, volume 3709 of *Lecture Notes in Computer Science*, pages 62–76. Springer, 2005. doi:10.1007/11564751\8.
- [25] Max   strand. *Short-term Underground Mine Scheduling: An Industrial Application of Constraint Programming*. PhD thesis, Royal Institute of Technology, Stockholm, Sweden, 2021. URL: <https://nbn-resolving.org/urn:nbn:se:kth:diva-294959>.
- [26] Max   strand, Mikael Johansson, and Hamid Reza Feyzmahdavian. Short-term scheduling of production fleets in underground mines using cp-based LNS. In Peter J. Stuckey, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 18th International Conference, CPAIOR 2021, Vienna, Austria, July 5-8, 2021, Proceedings*, volume 12735 of *Lecture Notes in Computer Science*, pages 365–382. Springer, 2021. doi:10.1007/978-3-030-78230-6\23.
- [27] Max   strand, Mikael Johansson, and Alessandro Zanzarini. Fleet scheduling in underground mines using constraint programming. In Willem Jan van Hoeve, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, volume 10848 of *Lecture Notes in Computer Science*, pages 605–613. Springer, 2018. doi:10.1007/978-3-319-93031-2\44.
- [28] Max   strand, Mikael Johansson, and Alessandro Zanzarini. Underground mine scheduling of mobile machines using constraint programming and large neighborhood search. *Comput. Oper. Res.*, 123:105036, 2020. URL: <https://doi.org/10.1016/j.cor.2020.105036>, doi:10.1016/J.COR.2020.105036.
- [29] Amelia Badica, Costin Badica, and Mirjana Ivanovic. Block structured scheduling using constraint logic programming. *AI Commun.*, 33(1):41–57, 2020. doi:10.3233/AIC-200650.
- [30] Amelia Badica, Costin Badica, Mirjana Ivanovic, and Doina Logofatu. Exploring the space of block structured scheduling processes using constraint logic programming. In Igor V. Kottenko, Costin Badica, Vasily Desnitsky, Didier El Baz, and Mirjana Ivanovic, editors, *Intelligent Distributed Computing XIII, 13th International Symposium on Intelligent Distributed Computing, IDC 2019, St. Petersburg, Russia, 7-9 October, 2019*, volume 868 of *Studies in Computational Intelligence*, pages 149–159. Springer, 2019. doi:10.1007/978-3-030-32258-8\17.
- [31] Maliheh Aramon Bajestani and J. Christopher Beck. Scheduling an aircraft repair shop. In Fahiem Bacchus, Carmel Domshlak, Stefan Edelkamp, and Malte Helmert, editors, *Proceedings of the 21st International Conference on Automated Planning and Scheduling, ICAPS 2011, Freiburg, Germany June 11-16, 2011*. AAAI, 2011. URL: <http://aaai.org/ocs/index.php/ICAPS/ICAPS11/paper/view/2680>.
- [32] Maliheh Aramon Bajestani and J. Christopher Beck. Scheduling a dynamic aircraft repair shop with limited repair resources. *J. Artif. Intell. Res.*, 47:35–70, 2013. URL: <https://doi.org/10.1613/jair.3902>, doi:10.1613/JAIR.3902.
- [33] Maliheh Aramon Bajestani and J. Christopher Beck. A two-stage coupled algorithm for an integrated maintenance planning and flowshop scheduling problem with deteriorating machines. *J. Sched.*, 18(5):471–486, 2015. URL: <https://doi.org/10.1007/s10951-015-0416-2>, doi:10.1007/S10951-015-0416-2.

- [34] Philippe Baptiste. Constraint-based schedulers, do they really work? In Ian P. Gent, editor, *Principles and Practice of Constraint Programming - CP 2009, 15th International Conference, CP 2009, Lisbon, Portugal, September 20-24, 2009, Proceedings*, volume 5732 of *Lecture Notes in Computer Science*, page 1. Springer, 2009. doi:10.1007/978-3-642-04244-7\_1.
- [35] Philippe Baptiste and Nicolas Bonifas. Redundant cumulative constraints to compute preemptive bounds. *Discret. Appl. Math.*, 234:168–177, 2018. URL: <https://doi.org/10.1016/j.dam.2017.05.001>, doi:10.1016/J.DAM.2017.05.001.
- [36] Philippe Baptiste, Philippe Laborie, Claude Le Pape, and Wim Nuijten. Constraint-based scheduling and planning. In Francesca Rossi, Peter van Beek, and Toby Walsh, editors, *Handbook of Constraint Programming*, volume 2 of *Foundations of Artificial Intelligence*, pages 761–799. Elsevier, 2006. doi:10.1016/S1574-6526(06)80026-X.
- [37] Philippe Baptiste and Claude Le Pape. Constraint propagation and decomposition techniques for highly disjunctive and highly cumulative project scheduling problems. In Gert Smolka, editor, *Principles and Practice of Constraint Programming - CP97, Third International Conference, Linz, Austria, October 29 - November 1, 1997, Proceedings*, volume 1330 of *Lecture Notes in Computer Science*, pages 375–389. Springer, 1997. URL: <https://doi.org/10.1007/BFb0017454>, doi:10.1007/BFB0017454.
- [38] Philippe Baptiste and Claude Le Pape. Constraint propagation and decomposition techniques for highly disjunctive and highly cumulative project scheduling problems. *Constraints An Int. J.*, 5(1/2):119–139, 2000. doi:10.1023/A:1009822502231.
- [39] Philippe Baptiste, Claude Le Pape, and Wim Nuijten. *Constraint-Based Scheduling*. Springer US, 2001. URL: <http://dx.doi.org/10.1007/978-1-4615-1479-4>, doi:10.1007/978-1-4615-1479-4.
- [40] Pierre Baptiste, Bruno Legeard, and Christophe Varnier. Hoist scheduling problem: an approach based on constraint logic programming. In *Proceedings of the 1992 IEEE International Conference on Robotics and Automation, Nice, France, May 12-14, 1992*, pages 1139–1144. IEEE Computer Society, 1992. doi:10.1109/ROBOT.1992.220195.
- [41] Ada Barlatt, Amy Mainville Cohn, and Oleg Yu. Gusikhin. A hybrid approach for solving shift-selection and task-sequencing problems. In Laurent Perron and Michael A. Trick, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 5th International Conference, CPAIOR 2008, Paris, France, May 20-23, 2008, Proceedings*, volume 5015 of *Lecture Notes in Computer Science*, pages 288–292. Springer, 2008. doi:10.1007/978-3-540-68155-7\_24.
- [42] Roman Barták. Visopt shopfloor: Going beyond traditional scheduling. In Barry O’Sullivan, editor, *Recent Advances in Constraints, Joint ERCIM/CologNet International Workshop on Constraint Solving and Constraint Logic Programming, Cork, Ireland, June 19-21, 2002. Selected Papers*, volume 2627 of *Lecture Notes in Computer Science*, pages 185–199. Springer, 2002. doi:10.1007/3-540-36607-5\_14.
- [43] Roman Barták. Visopt shopfloor: On the edge of planning and scheduling. In Pascal Van Hentenryck, editor, *Principles and Practice of Constraint Programming - CP 2002, 8th International Conference, CP 2002, Ithaca, NY, USA, September 9-13, 2002, Proceedings*, volume 2470 of *Lecture Notes in Computer Science*, pages 587–602. Springer, 2002. doi:10.1007/3-540-46135-3\_39.
- [44] Roman Barták. Planning and scheduling. In Teofilo F. Gonzalez, Jorge Diaz-Herrera, and Allen Tucker, editors, *Computing Handbook, Third Edition: Computer Science and Software Engineering*, pages 39: 1–14. CRC Press, 2014.
- [45] Roman Barták, Ondrej Cepek, and Pavel Surynek. Discovering implied constraints in precedence graphs with alternatives. *Ann. Oper. Res.*, 180(1):233–263, 2010. URL: <https://doi.org/10.1007/s10479-008-0492-1>, doi:10.1007/S10479-008-0492-1.

- [46] Roman Barták and Miguel A. Salido. Constraint satisfaction for planning and scheduling problems. *Constraints An Int. J.*, 16(3):223–227, 2011. URL: <https://doi.org/10.1007/s10601-011-9109-4>, doi:10.1007/S10601-011-9109-4.
- [47] Roman Barták, Miguel A. Salido, and Francesca Rossi. New trends in constraint satisfaction, planning, and scheduling: a survey. *Knowl. Eng. Rev.*, 25(3):249–279, 2010. doi:10.1017/S0269888910000202.
- [48] Roman Barták and Marek Vlk. Reactive recovery from machine breakdown in production scheduling with temporal distance and resource constraints. In Stéphane Loiseau, Joaquim Filipe, Béatrice Duval, and H. Jaap van den Herik, editors, *ICAART 2015 - Proceedings of the International Conference on Agents and Artificial Intelligence, Volume 2, Lisbon, Portugal, 10-12 January, 2015*, pages 119–130. SciTePress, 2015.
- [49] Andrea Bartolini, Andrea Borghesi, Thomas Bridi, Michele Lombardi, and Michela Milano. Proactive workload dispatching on the EURORA supercomputer. In Barry O’Sullivan, editor, *Principles and Practice of Constraint Programming - 20th International Conference, CP 2014, Lyon, France, September 8-12, 2014. Proceedings*, volume 8656 of *Lecture Notes in Computer Science*, pages 765–780. Springer, 2014. doi:10.1007/978-3-319-10428-7\55.
- [50] Mohammadreza Barzegaran, Bahram Zarrin, and Paul Pop. Quality-of-control-aware scheduling of communication in tsnn-based fog computing platforms using constraint programming. In Anton Cervin and Yang Yang, editors, *2nd Workshop on Fog Computing and the IoT, Fog-IoT 2020, April 21, 2020, Sydney, Australia*, volume 80 of *OASICS*, pages 3:1–3:9. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2020. URL: <https://doi.org/10.4230/OASICS.Fog-IoT.2020.3>, doi:10.4230/OASICS.FOG-IOT.2020.3.
- [51] J. Christopher Beck. *Texture measurements as a basis for heuristic commitment techniques in constraint-directed scheduling*. PhD thesis, University of Toronto, Canada, 1999. URL: [https://librarysearch.library.utoronto.ca/permalink/01UTORONTO\\_INST/14bjeso/alma991106162342106196](https://librarysearch.library.utoronto.ca/permalink/01UTORONTO_INST/14bjeso/alma991106162342106196).
- [52] J. Christopher Beck. An empirical study of multi-point constructive search for constraint-based scheduling. In Derek Long, Stephen F. Smith, Daniel Borrajo, and Lee McCluskey, editors, *Proceedings of the Sixteenth International Conference on Automated Planning and Scheduling, ICAPS 2006, Cumbria, UK, June 6-10, 2006*, pages 274–283. AAAI, 2006. URL: <http://www.aaai.org/Library/ICAPS/2006/icaps06-028.php>.
- [53] J. Christopher Beck. Solution-guided multi-point constructive search for job shop scheduling. *J. Artif. Intell. Res.*, 29:49–77, 2007. URL: <https://doi.org/10.1613/jair.2169>, doi:10.1613/JAIR.2169.
- [54] J. Christopher Beck, Andrew J. Davenport, and Mark S. Fox. Five pitfalls of empirical scheduling research. In Gert Smolka, editor, *Principles and Practice of Constraint Programming - CP97, Third International Conference, Linz, Austria, October 29 - November 1, 1997, Proceedings*, volume 1330 of *Lecture Notes in Computer Science*, pages 390–404. Springer, 1997. URL: <https://doi.org/10.1007/BFb0017455>, doi:10.1007/BFB0017455.
- [55] J. Christopher Beck, T. K. Feng, and Jean-Paul Watson. Combining constraint programming and local search for job-shop scheduling. *INFORMS J. Comput.*, 23(1):1–14, 2011. URL: <https://doi.org/10.1287/ijoc.1100.0388>, doi:10.1287/IJOC.1100.0388.
- [56] J. Christopher Beck and Mark S. Fox. A generic framework for constraint-directed search and scheduling. *AI Mag.*, 19(4):101–130, 1998. URL: <https://doi.org/10.1609/aimag.v19i4.1426>, doi:10.1609/AIMAG.V19I4.1426.
- [57] J. Christopher Beck and Mark S. Fox. Dynamic problem structure analysis as a basis for constraint-directed scheduling heuristics. *Artif. Intell.*, 117(1):31–81, 2000. doi:10.1016/S0004-3702(99)00099-5.
- [58] J. Christopher Beck, Patrick Prosser, and Evgeny Selensky. Vehicle routing and job shop scheduling: What’s the difference? In Enrico Giunchiglia, Nicola Muscettola, and Dana S. Nau, editors, *Proceedings of the Thirteenth International Conference on Automated Planning and Scheduling (ICAPS 2003), June 9-13, 2003, Trento, Italy*, pages 267–276. AAAI, 2003. URL: <http://www.aaai.org/Library/ICAPS/2003/icaps03-027.php>.

- [59] J. Christopher Beck and Philippe Refalo. A hybrid approach to scheduling with earliness and tardiness costs. *Ann. Oper. Res.*, 118(1-4):49–71, 2003. doi: 10.1023/A:1021849405707.
- [60] J. Christopher Beck and Nic Wilson. Job shop scheduling with probabilistic durations. In Ramón López de Mántaras and Lorenza Saitta, editors, *Proceedings of the 16th European Conference on Artificial Intelligence, ECAI'2004, including Prestigious Applicants of Intelligent Systems, PAIS 2004, Valencia, Spain, August 22-27, 2004*, pages 652–656. IOS Press, 2004.
- [61] J. Christopher Beck and Nic Wilson. Proactive algorithms for scheduling with probabilistic durations. In Leslie Pack Kaelbling and Alessandro Saffioti, editors, *IJCAI-05, Proceedings of the Nineteenth International Joint Conference on Artificial Intelligence, Edinburgh, Scotland, UK, July 30 - August 5, 2005*, pages 1201–1206. Professional Book Center, 2005. URL: <http://ijcai.org/Proceedings/05/Papers/0748.pdf>.
- [62] J. Christopher Beck and Nic Wilson. Proactive algorithms for job shop scheduling with probabilistic durations. *J. Artif. Intell. Res.*, 28:183–232, 2007. URL: <https://doi.org/10.1613/jair.2080>, doi:10.1613/JAIR.2080.
- [63] Asma Ouled Bedhief. Comparing mixed-integer programming and constraint programming models for the hybrid flow shop scheduling problem with dedicated machines. *Journal Européen des Systèmes Automatisés*, 2021. URL: <https://api.semanticscholar.org/CorpusID:240611192>.
- [64] Mirza Omer Beg and Peter van Beek. A constraint programming approach for integrated spatial and temporal scheduling for clustered architectures. *ACM Trans. Embed. Comput. Syst.*, 13(1):14:1–14:23, 2013. URL: <http://doi.acm.org/10.1145/2512470>, doi:10.1145/2512470.
- [65] Jan Kristof Behrens, Ralph Lange, and Masoumeh Mansouri. A constraint programming approach to simultaneous task allocation and motion scheduling for industrial dual-arm manipulation tasks. In *International Conference on Robotics and Automation, ICRA 2019, Montreal, QC, Canada, May 20-24, 2019*, pages 8705–8711. IEEE, 2019. doi:10.1109/ICRA.2019.8794022.
- [66] Jan Kristof Behrens, Ralph Lange, and Masoumeh Mansouri. A constraint programming approach to simultaneous task allocation and motion scheduling for industrial dual-arm manipulation tasks. *CoRR*, abs/1901.07914, 2019. URL: <http://arxiv.org/abs/1901.07914>, arXiv:1901.07914.
- [67] N Beldiceanu and E Contejean. Introducing global constraints in CHIP. *Mathematical and Computer Modelling*, 20(12):97–123, 1994. URL: <https://www.sciencedirect.com/science/article/pii/0895717794901279>, doi:[https://doi.org/10.1016/0895-7177\(94\)90127-9](https://doi.org/10.1016/0895-7177(94)90127-9).
- [68] Nicolas Beldiceanu and Mats Carlsson. A new multi-resource cumulatives constraint with negative heights. In Pascal Van Hentenryck, editor, *Principles and Practice of Constraint Programming - CP 2002, 8th International Conference, CP 2002, Ithaca, NY, USA, September 9-13, 2002, Proceedings*, volume 2470 of *Lecture Notes in Computer Science*, pages 63–79. Springer, 2002. doi:10.1007/3-540-46135-3\_5.
- [69] Nicolas Beldiceanu, Mats Carlsson, Sophie Demasse, and Emmanuel Poder. New filtering for the *cumulative* constraint in the context of non-overlapping rectangles. *Ann. Oper. Res.*, 184(1):27–50, 2011. URL: <https://doi.org/10.1007/s10479-010-0731-0>, doi:10.1007/S10479-010-0731-0.
- [70] Nicolas Beldiceanu, Mats Carlsson, and Emmanuel Poder. New filtering for the cumulative constraint in the context of non-overlapping rectangles. In Laurent Perron and Michael A. Trick, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 5th International Conference, CPAIOR 2008, Paris, France, May 20-23, 2008, Proceedings*, volume 5015 of *Lecture Notes in Computer Science*, pages 21–35. Springer, 2008. doi:10.1007/978-3-540-68155-7\_5.
- [71] Nicolas Beldiceanu and Emmanuel Poder. A continuous multi-resources *cumulative* constraint with positive-negative resource consumption-production. In Pascal Van Hentenryck and Laurence A. Wolsey, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 4th International Conference, CPAIOR 2007, Brussels, Belgium, May 23-26, 2007, Proceedings*, volume 4510 of *Lecture Notes in Computer Science*, pages 214–228. Springer, 2007. doi:10.1007/978-3-540-72397-4\_16.

- [72] Said Belhadji and Amar Isli. Temporal constraint satisfaction techniques in job shop scheduling problem solving. *Constraints An Int. J.*, 3(2/3):203–211, 1998. doi:10.1023/A:1009777711218.
- [73] Till Bender, David Wittwer, and Thorsten Schmidt. Applying constraint programming to the multi-mode scheduling problem in harvest logistics. In Martijn Mes, Eduardo Lalla-Ruiz, and Stefan Voß, editors, *Computational Logistics - 12th International Conference, ICCL 2021, Enschede, The Netherlands, September 27-29, 2021, Proceedings*, volume 13004 of *Lecture Notes in Computer Science*, pages 562–577. Springer, 2021. doi:10.1007/978-3-030-87672-2\\_37.
- [74] Jacques F. Benders. Partitioning procedures for solving mixed-variables programming problems. *Numerische Mathematik*, 4(1):238–252, December 1962. URL: <http://dx.doi.org/10.1007/bf01386316>, doi:10.1007/bf01386316.
- [75] Ondrej Benedikt, István Módos, and Zdenek Hanzálek. Power of pre-processing: production scheduling with variable energy pricing and power-saving states. *Constraints An Int. J.*, 25(3-4):300–318, 2020. URL: <https://doi.org/10.1007/s10601-020-09317-y>, doi:10.1007/S10601-020-09317-Y.
- [76] Ondrej Benedikt, Premysl Sucha, István Módos, Marek Vlk, and Zdenek Hanzálek. Energy-aware production scheduling with power-saving modes. In Willem Jan van Hoeve, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, volume 10848 of *Lecture Notes in Computer Science*, pages 72–81. Springer, 2018. doi:10.1007/978-3-319-93031-2\\_6.
- [77] Luca Benini, Davide Bertozzi, Alessio Guerri, and Michela Milano. Allocation, scheduling and voltage scaling on energy aware mpsoes. In J. Christopher Beck and Barbara M. Smith, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, Third International Conference, CPAIOR 2006, Cork, Ireland, May 31 - June 2, 2006, Proceedings*, volume 3990 of *Lecture Notes in Computer Science*, pages 44–58. Springer, 2006. doi:10.1007/11757375\\_6.
- [78] Luca Benini, Michele Lombardi, Michela Milano, and Martino Ruggiero. Optimal resource allocation and scheduling for the CELL BE platform. *Ann. Oper. Res.*, 184(1):51–77, 2011. URL: <https://doi.org/10.1007/s10479-010-0718-x>, doi:10.1007/S10479-010-0718-X.
- [79] E. Bensana, Michel Lemaître, and Gérard Verfaillie. Earth observation satellite management. *Constraints An Int. J.*, 4(3):293–299, 1999. doi:10.1023/A:1026488509554.
- [80] Timo Berthold, Stefan Heinz, Marco E. Lübbecke, Rolf H. Möhring, and Jens Schulz. A constraint integer programming approach for resource-constrained project scheduling. In Andrea Lodi, Michela Milano, and Paolo Toth, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 7th International Conference, CPAIOR 2010, Bologna, Italy, June 14-18, 2010. Proceedings*, volume 6140 of *Lecture Notes in Computer Science*, pages 313–317. Springer, 2010. doi:10.1007/978-3-642-13520-0\\_34.
- [81] Christian Bessiere, Emmanuel Hebrard, Marc-André Ménard, Claude-Guy Quimper, and Toby Walsh. Buffered resource constraint: Algorithms and complexity. In Helmut Simonis, editor, *Integration of AI and OR Techniques in Constraint Programming - 11th International Conference, CPAIOR 2014, Cork, Ireland, May 19-23, 2014. Proceedings*, volume 8451 of *Lecture Notes in Computer Science*, pages 318–333. Springer, 2014. doi:10.1007/978-3-319-07046-9\\_23.
- [82] Julien Bidot, Thierry Vidal, Philippe Laborie, and J. Christopher Beck. A theoretic and practical framework for scheduling in a stochastic environment. *J. Sched.*, 12(3):315–344, 2009. URL: <https://doi.org/10.1007/s10951-008-0080-x>, doi:10.1007/S10951-008-0080-X.
- [83] Jean-Charles Billaut, Emmanuel Hebrard, and Pierre Lopez. Complete characterization of near-optimal sequences for the two-machine flow shop scheduling problem. In Nicolas Beldiceanu, Narendra Jussien, and Eric Pinson, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 9th International Conference, CPAIOR 2012, Nantes, France, May 28 - June 1, 2012. Proceedings*, volume 7298 of *Lecture Notes in Computer Science*, pages 66–80. Springer, 2012. doi:10.1007/978-3-642-29828-8\\_5.



- [84] Arthur Bit-Monnot. Enhancing hybrid CP-SAT search for disjunctive scheduling. In Kobi Gal, Ann Nowé, Grzegorz J. Nalepa, Roy Fairstein, and Roxana Radulescu, editors, *ECAI 2023 - 26th European Conference on Artificial Intelligence, September 30 - October 4, 2023, Kraków, Poland - Including 12th Conference on Prestigious Applications of Intelligent Systems (PAIS 2023)*, volume 372 of *Frontiers in Artificial Intelligence and Applications*, pages 255–262. IOS Press, 2023. doi:10.3233/FAIA230278.
- [85] Jacek Blazewicz, Klaus H. Ecker, Erwin Pesch, Günter Schmidt, Malgorzata Sterna, and Jan Weglarz. Constraint Programming and Disjunctive Scheduling. In *Handbook on Scheduling*, International Handbooks on Information Systems, chapter 16, pages 609–670. Springer, November 2019. URL: [https://ideas.repec.org/h/spr/ihichp/978-3-319-99849-7\\_16.html](https://ideas.repec.org/h/spr/ihichp/978-3-319-99849-7_16.html), doi:10.1007/978-3-319-99849-7.
- [86] Jacek Blazewicz, Jan Karel Lenstra, and A. H. G. Rinnooy Kan. Scheduling subject to resource constraints: classification and complexity. *Discret. Appl. Math.*, 5(1):11–24, 1983. doi:10.1016/0166-218X(83)90012-4.
- [87] Michelle L. Blom, Christina N. Burt, Adrian R. Pearce, and Peter J. Stuckey. A decomposition-based heuristic for collaborative scheduling in a network of open-pit mines. *INFORMS J. Comput.*, 26(4):658–676, 2014. URL: <https://doi.org/10.1287/ijoc.2013.0590>, doi:10.1287/IJOC.2013.0590.
- [88] Michelle L. Blom, Adrian R. Pearce, and Peter J. Stuckey. A decomposition-based algorithm for the scheduling of open-pit networks over multiple time periods. *Manag. Sci.*, 62(10):3059–3084, 2016. URL: <https://doi.org/10.1287/mnsc.2015.2284>, doi:10.1287/MNSC.2015.2284.
- [89] Grzegorz Bocewicz, Irena Bach, and Zbigniew Antoni Banaszak. Logic-algebraic method based and constraints programming driven approach to agvs scheduling. *Int. J. Intell. Inf. Database Syst.*, 3(1):56–74, 2009. doi:10.1504/IJIIDS.2009.023038.
- [90] Miquel Bofill, Jordi Coll, Josep Suy, and Mateu Villaret. An efficient SMT approach to solve mrcpsp/max instances with tight constraints on resources. In J. Christopher Beck, editor, *Principles and Practice of Constraint Programming - 23rd International Conference, CP 2017, Melbourne, VIC, Australia, August 28 - September 1, 2017, Proceedings*, volume 10416 of *Lecture Notes in Computer Science*, pages 71–79. Springer, 2017. doi:10.1007/978-3-319-66158-2\_5.
- [91] Miquel Bofill, Joan Espasa, Marc Garcia, Miquel Palahí, Josep Suy, and Mateu Villaret. Scheduling B2B meetings. In Barry O’Sullivan, editor, *Principles and Practice of Constraint Programming - 20th International Conference, CP 2014, Lyon, France, September 8-12, 2014. Proceedings*, volume 8656 of *Lecture Notes in Computer Science*, pages 781–796. Springer, 2014. doi:10.1007/978-3-319-10428-7\_56.
- [92] Miquel Bofill, Marc Garcia, Josep Suy, and Mateu Villaret. Maxsat-based scheduling of B2B meetings. In Laurent Michel, editor, *Integration of AI and OR Techniques in Constraint Programming - 12th International Conference, CPAIOR 2015, Barcelona, Spain, May 18-22, 2015, Proceedings*, volume 9075 of *Lecture Notes in Computer Science*, pages 65–73. Springer, 2015. doi:10.1007/978-3-319-18008-3\_5.
- [93] Alessio Bonfietti. A constraint programming scheduling solver for the mpopt programming environment. *Intelligenza Artificiale*, 10(1):65–77, 2016. doi:10.3233/IA-160095.
- [94] Alessio Bonfietti, Michele Lombardi, Luca Benini, and Michela Milano. A constraint based approach to cyclic RCPSP. In Jimmy Ho-Man Lee, editor, *Principles and Practice of Constraint Programming - CP 2011 - 17th International Conference, CP 2011, Perugia, Italy, September 12-16, 2011. Proceedings*, volume 6876 of *Lecture Notes in Computer Science*, pages 130–144. Springer, 2011. doi:10.1007/978-3-642-23786-7\_12.
- [95] Alessio Bonfietti, Michele Lombardi, Luca Benini, and Michela Milano. Global cyclic cumulative constraint. In Nicolas Beldiceanu, Narendra Jussien, and Eric Pinson, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 9th International Conference, CPAIOR 2012, Nantes, France, May 28 - June 1, 2012. Proceedings*, volume 7298 of *Lecture Notes in Computer Science*, pages 81–96. Springer, 2012. doi:10.1007/978-3-642-29828-8\_6.

- [96] Alessio Bonfietti, Michele Lombardi, Luca Benini, and Michela Milano. CROSS cyclic resource-constrained scheduling solver. *Artif. Intell.*, 206:25–52, 2014. URL: <https://doi.org/10.1016/j.artint.2013.09.006>, doi:10.1016/J.ARTINT.2013.09.006.
- [97] Alessio Bonfietti, Michele Lombardi, and Michela Milano. De-cycling cyclic scheduling problems. In Daniel Borrajo, Subbarao Kambhampati, Angelo Oddi, and Simone Fratini, editors, *Proceedings of the Twenty-Third International Conference on Automated Planning and Scheduling, ICAPS 2013, Rome, Italy, June 10-14, 2013*. AAAI, 2013. URL: <http://www.aaai.org/ocs/index.php/ICAPS/ICAPS13/paper/view/6050>.
- [98] Alessio Bonfietti, Michele Lombardi, and Michela Milano. Disregarding duration uncertainty in partial order schedules? yes, we can! In Helmut Simonis, editor, *Integration of AI and OR Techniques in Constraint Programming - 11th International Conference, CPAIOR 2014, Cork, Ireland, May 19-23, 2014. Proceedings*, volume 8451 of *Lecture Notes in Computer Science*, pages 210–225. Springer, 2014. doi:10.1007/978-3-319-07046-9\_15.
- [99] Alessio Bonfietti and Michela Milano. A constraint-based approach to cyclic resource-constrained scheduling problem. In Paolo Liberatore, Michele Lombardi, and Floriano Scioscia, editors, *Proceedings of the Doctoral Consortium of the 12th Symposium of the Italian Association for Artificial Intelligence, Rome, Italy, June 15, 2012*, volume 926 of *CEUR Workshop Proceedings*, pages 10–12. CEUR-WS.org, 2012. URL: <https://ceur-ws.org/Vol-926/paper2.pdf>.
- [100] Alessio Bonfietti, Alessandro Zanarini, Michele Lombardi, and Michela Milano. The multirate resource constraint. In Michel Rueher, editor, *Principles and Practice of Constraint Programming - 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016, Proceedings*, volume 9892 of *Lecture Notes in Computer Science*, pages 113–129. Springer, 2016. doi:10.1007/978-3-319-44953-1\_8.
- [101] Kyle E. C. Booth, Goldie Nejat, and J. Christopher Beck. A constraint programming approach to multi-robot task allocation and scheduling in retirement homes. In Michel Rueher, editor, *Principles and Practice of Constraint Programming - 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016, Proceedings*, volume 9892 of *Lecture Notes in Computer Science*, pages 539–555. Springer, 2016. doi:10.1007/978-3-319-44953-1\_34.
- [102] Andrea Borghesi, Andrea Bartolini, Michele Lombardi, Michela Milano, and Luca Benini. Scheduling-based power capping in high performance computing systems. *Sustain. Comput. Informatics Syst.*, 19:1–13, 2018. URL: <https://doi.org/10.1016/j.suscom.2018.05.007>, doi:10.1016/J.SUSCOM.2018.05.007.
- [103] Eric Boucher, Astrid Bachelu, Christophe Varnier, Pierre Baptiste, and Bruno Legeard. Multi-criteria comparison between algorithmic, constraint logic and specific constraint programming on a real schedulingt problem. In Mark Wallace, editor, *Proceedings of the Third International Conference on the Practical Application of Constraint Technology, PACT 1997, Westminster Central Hall, London, UK, April 23-25, 1997*, pages 47–64. Practical Application Company Ltd., 1997.
- [104] Raphaël Boudreault, Vanessa Simard, Daniel Lafond, and Claude-Guy Quimper. A constraint programming approach to ship refit project scheduling. In Christine Solnon, editor, *28th International Conference on Principles and Practice of Constraint Programming, CP 2022, July 31 to August 8, 2022, Haifa, Israel*, volume 235 of *LIPIcs*, pages 10:1–10:16. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022. URL: <https://doi.org/10.4230/LIPIcs.CP.2022.10>, doi:10.4230/LIPICS.CP.2022.10.
- [105] Eric Bourreau, Thierry Garaix, Matthieu Gondran, Philippe Lacomme, and Nikolay Tchernev. A constraint-programming based decomposition method for the generalised workforce scheduling and routing problem (GWSRP). *Int. J. Prod. Res.*, 60(4):1265–1283, 2022. doi:10.1080/00207543.2020.1856436.
- [106] Silvia Breitingner and Hendrik C. R. Lock. Using constraint logic programming for industrial scheduling problems. In Christoph Beierle and Lutz Plümer, editors, *Logic Programming: Formal Methods and Practical Applications, Studies in Computer Science and Artificial Intelligence*, pages 273–299. Elsevier Science B.V./North-Holland, 1995.
- [107] Thomas Bridi, Andrea Bartolini, Michele Lombardi, Michela Milano, and Luca Benini. A constraint programming scheduler for heterogeneous high-performance computing machines. *IEEE Trans. Parallel Distributed Syst.*, 27(10):2781–2794, 2016. doi:10.1109/TPDS.2016.2516997.

- [108] Thomas Bridi, Michele Lombardi, Andrea Bartolini, Luca Benini, and Michela Milano. DARDIS: distributed and randomized dispatching and scheduling. In Gal A. Kaminka, Maria Fox, Paolo Bouquet, Eyke Hüllermeier, Virginia Dignum, Frank Dignum, and Frank van Harmelen, editors, *ECAI 2016 - 22nd European Conference on Artificial Intelligence, 29 August-2 September 2016, The Hague, The Netherlands - Including Prestigious Applications of Artificial Intelligence (PAIS 2016)*, volume 285 of *Frontiers in Artificial Intelligence and Applications*, pages 1598–1599. IOS Press, 2016. doi:10.3233/978-1-61499-672-9-1598.
- [109] Peter Brucker, Andreas Drexel, Rolf Möhring, Klaus Neumann, and Erwin Pesch. Resource-constrained project scheduling: Notation, classification, models, and methods. *European Journal of Operational Research*, 112(1):3–41, January 1999. URL: [http://dx.doi.org/10.1016/S0377-2217\(98\)00204-5](http://dx.doi.org/10.1016/S0377-2217(98)00204-5), doi:10.1016/S0377-2217(98)00204-5.
- [110] Vittorio Brusoni, Luca Console, Evelina Lamma, Paola Mello, Michela Milano, and Paolo Terenziani. Resource-based vs. task-based approaches for scheduling problems. In Zbigniew W. Ras and Maciej Michalewicz, editors, *Foundations of Intelligent Systems, 9th International Symposium, ISMIS '96, Zakopane, Poland, June 9-13, 1996, Proceedings*, volume 1079 of *Lecture Notes in Computer Science*, pages 325–334. Springer, 1996. doi:10.1007/3-540-61286-6\_157.
- [111] Christina N. Burt, Nir Lipovetzky, Adrian R. Pearce, and Peter J. Stuckey. Scheduling with fixed maintenance, shared resources and nonlinear feedrate constraints: A mine planning case study. In Laurent Michel, editor, *Integration of AI and OR Techniques in Constraint Programming - 12th International Conference, CPAIOR 2015, Barcelona, Spain, May 18-22, 2015, Proceedings*, volume 9075 of *Lecture Notes in Computer Science*, pages 91–107. Springer, 2015. doi:10.1007/978-3-319-18008-3\_7.
- [112] Jordi Coll Caballero. Scheduling through logic-based tools. *Constraints An Int. J.*, 28(3):510, 2023. URL: <https://doi.org/10.1007/s10601-023-09357-0>, doi:10.1007/S10601-023-09357-0.
- [113] Louis-Pierre Campeau and Michel Gamache. Short- and medium-term optimization of underground mine planning using constraint programming. *Constraints An Int. J.*, 27(4):414–431, 2022. URL: <https://doi.org/10.1007/s10601-022-09337-w>, doi:10.1007/S10601-022-09337-W.
- [114] Quentin Cappart and Pierre Schaus. Rescheduling railway traffic on real time situations using time-interval variables. In Domenico Salvagnin and Michele Lombardi, editors, *Integration of AI and OR Techniques in Constraint Programming - 14th International Conference, CPAIOR 2017, Padua, Italy, June 5-8, 2017, Proceedings*, volume 10335 of *Lecture Notes in Computer Science*, pages 312–327. Springer, 2017. doi:10.1007/978-3-319-59776-8\_26.
- [115] Quentin Cappart, Charles Thomas, Pierre Schaus, and Louis-Martin Rousseau. A constraint programming approach for solving patient transportation problems. In John N. Hooker, editor, *Principles and Practice of Constraint Programming - 24th International Conference, CP 2018, Lille, France, August 27-31, 2018, Proceedings*, volume 11008 of *Lecture Notes in Computer Science*, pages 490–506. Springer, 2018. doi:10.1007/978-3-319-98334-9\_32.
- [116] Tom Carchrae, J. Christopher Beck, and Eugene C. Freuder. Methods to learn abstract scheduling models. In Peter van Beek, editor, *Principles and Practice of Constraint Programming - CP 2005, 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005, Proceedings*, volume 3709 of *Lecture Notes in Computer Science*, page 842. Springer, 2005. doi:10.1007/11564751\_80.
- [117] Jacques Carlier and Eric Pinson. An algorithm for solving the job-shop problem. *Management Science*, 35(2):164–176, February 1989. URL: <http://dx.doi.org/10.1287/mnsc.35.2.164>, doi:10.1287/mnsc.35.2.164.
- [118] Jacques Carlier and Eric Pinson. A practical use of jackson’s preemptive schedule for solving the job shop problem. *Annals of Operations Research*, 26(1–4):269–287, December 1990. URL: <http://dx.doi.org/10.1007/bf03543071>, doi:10.1007/bf03543071.
- [119] Jacques Carlier and Eric Pinson. Adjustment of heads and tails for the job-shop problem. *European Journal of Operational Research*, 78(2):146–161, October 1994. URL: [http://dx.doi.org/10.1016/0377-2217\(94\)90379-4](http://dx.doi.org/10.1016/0377-2217(94)90379-4), doi:10.1016/0377-2217(94)90379-4.

- [120] Yves Caseau. Using constraint propagation for complex scheduling problems: Managing size, complex resources and travel. In Gert Smolka, editor, *Principles and Practice of Constraint Programming - CP97, Third International Conference, Linz, Austria, October 29 - November 1, 1997, Proceedings*, volume 1330 of *Lecture Notes in Computer Science*, pages 163–166. Springer, 1997. URL: <https://doi.org/10.1007/BFb0017437>, doi:10.1007/BFB0017437.
- [121] Sascha Van Cauwelaert, Cyrille Dejemeppe, Jean-Noël Monette, and Pierre Schaus. Efficient filtering for the unary resource with family-based transition times. In Michel Rueher, editor, *Principles and Practice of Constraint Programming - 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016, Proceedings*, volume 9892 of *Lecture Notes in Computer Science*, pages 520–535. Springer, 2016. doi:10.1007/978-3-319-44953-1\_33.
- [122] Sascha Van Cauwelaert, Michele Lombardi, and Pierre Schaus. How efficient is a global constraint in practice? - A fair experimental framework. *Constraints An Int. J.*, 23(1):87–122, 2018. URL: <https://doi.org/10.1007/s10601-017-9277-y>, doi:10.1007/S10601-017-9277-Y.
- [123] Sasha Van Cauwelaert, Cyrille Dejemeppe, and Pierre Schaus. An efficient filtering algorithm for the unary resource constraint with transition times and optional activities. *Journal of Scheduling*, 23(4):431–449, February 2020. URL: <http://dx.doi.org/10.1007/s10951-019-00632-8>, doi:10.1007/s10951-019-00632-8.
- [124] Amedeo Cesta, Angelo Oddi, and Stephen F. Smith. Scheduling multi-capacitated resources under complex temporal constraints. In Michael J. Maher and Jean-Francois Puget, editors, *Principles and Practice of Constraint Programming - CP98, 4th International Conference, Pisa, Italy, October 26-30, 1998, Proceedings*, volume 1520 of *Lecture Notes in Computer Science*, page 465. Springer, 1998. doi:10.1007/3-540-49481-2\_36.
- [125] Nicolas Chapados, Marc Joliveau, and Louis-Martin Rousseau. Retail store workforce scheduling by expected operating income maximization. In Tobias Achterberg and J. Christopher Beck, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 8th International Conference, CPAIOR 2011, Berlin, Germany, May 23-27, 2011. Proceedings*, volume 6697 of *Lecture Notes in Computer Science*, pages 53–58. Springer, 2011. doi:10.1007/978-3-642-21311-3\_7.
- [126] Geoffrey Chu, Serge Gaspers, Nina Narodytska, Andreas Schutt, and Toby Walsh. On the complexity of global scheduling constraints under structural restrictions. In Francesca Rossi, editor, *IJCAI 2013, Proceedings of the 23rd International Joint Conference on Artificial Intelligence, Beijing, China, August 3-9, 2013*, pages 503–509. IJCAI/AAAI, 2013. URL: <http://www.aaai.org/ocs/index.php/IJCAI/IJCAI13/paper/view/6878>.
- [127] Yingyi Chu and Quanshi Xia. A hybrid algorithm for a class of resource constrained scheduling problems. In Roman Barták and Michela Milano, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, Second International Conference, CPAIOR 2005, Prague, Czech Republic, May 30 - June 1, 2005, Proceedings*, volume 3524 of *Lecture Notes in Computer Science*, pages 110–124. Springer, 2005. doi:10.1007/11493853\_10.
- [128] André A. Ciré, Elvin Coban, and John N. Hooker. Mixed integer programming vs. logic-based benders decomposition for planning and scheduling. In Carla P. Gomes and Meinolf Sellmann, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 10th International Conference, CPAIOR 2013, Yorktown Heights, NY, USA, May 18-22, 2013. Proceedings*, volume 7874 of *Lecture Notes in Computer Science*, pages 325–331. Springer, 2013. doi:10.1007/978-3-642-38171-3\_22.
- [129] Alexis De Clercq, Thierry Petit, Nicolas Beldiceanu, and Narendra Jussien. Filtering algorithms for discrete cumulative problems with overloads of resource. In Jimmy Ho-Man Lee, editor, *Principles and Practice of Constraint Programming - CP 2011 - 17th International Conference, CP 2011, Perugia, Italy, September 12-16, 2011. Proceedings*, volume 6876 of *Lecture Notes in Computer Science*, pages 240–255. Springer, 2011. doi:10.1007/978-3-642-23786-7\_20.
- [130] Elvin Coban and John N. Hooker. Single-facility scheduling over long time horizons by logic-based benders decomposition. In Andrea Lodi, Michela Milano, and Paolo Toth, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 7th International Conference, CPAIOR 2010, Bologna, Italy, June 14-18, 2010. Proceedings*, volume 6140 of *Lecture Notes in Computer Science*, pages 87–91. Springer, 2010. doi:10.1007/978-3-642-13520-0\_11.

- [131] Eldan Cohen, Guoyu Huang, and J. Christopher Beck. (I can get) satisfaction: Preference-based scheduling for concert-goers at multi-venue music festivals. In Serge Gaspers and Toby Walsh, editors, *Theory and Applications of Satisfiability Testing - SAT 2017 - 20th International Conference, Melbourne, VIC, Australia, August 28 - September 1, 2017, Proceedings*, volume 10491 of *Lecture Notes in Computer Science*, pages 147–163. Springer, 2017. doi:10.1007/978-3-319-66263-3\_10.
- [132] Giacomo Da Col and Erich Teppan. Large-scale benchmarks for the job shop scheduling problem. *CoRR*, abs/2102.08778, 2021. URL: <https://arxiv.org/abs/2102.08778>, arXiv:2102.08778.
- [133] Giacomo Da Col and Erich Christian Teppan. Industrial size job shop scheduling tackled by present day CP solvers. In Thomas Schiex and Simon de Givry, editors, *Principles and Practice of Constraint Programming - 25th International Conference, CP 2019, Stamford, CT, USA, September 30 - October 4, 2019, Proceedings*, volume 11802 of *Lecture Notes in Computer Science*, pages 144–160. Springer, 2019. doi:10.1007/978-3-030-30048-7\_9.
- [134] Giacomo Da Col and Erich Christian Teppan. Industrial-size job shop scheduling with constraint programming. *Operations Research Perspectives*, 2022. URL: <https://api.semanticscholar.org/CorpusID:251551160>.
- [135] Yves Colombani. Constraint programming: an efficient and practical approach to solving the job-shop problem. In Eugene C. Freuder, editor, *Proceedings of the Second International Conference on Principles and Practice of Constraint Programming, Cambridge, Massachusetts, USA, August 19-22, 1996*, volume 1118 of *Lecture Notes in Computer Science*, pages 149–163. Springer, 1996. doi:10.1007/3-540-61551-2\_72.
- [136] Kateryna Czerniachowska, Radosław Wichniarek, and Krzysztof Żywicki. Constraint programming for flexible flow shop scheduling problem with repeated jobs and repeated operations. *Advances in Science and Technology Research Journal*, 17(3):280–293, 2023. doi:10.12913/22998624/166588.
- [137] Emilie Danna and Laurent Perron. Structured vs. unstructured large neighborhood search: A case study on job-shop scheduling problems with earliness and tardiness costs. In Francesca Rossi, editor, *Principles and Practice of Constraint Programming - CP 2003, 9th International Conference, CP 2003, Kinsale, Ireland, September 29 - October 3, 2003, Proceedings*, volume 2833 of *Lecture Notes in Computer Science*, pages 817–821. Springer, 2003. doi:10.1007/978-3-540-45193-8\_59.
- [138] Ken Darby-Dowman, James Little, Gautam Mitra, and Marco Zaffalon. Constraint logic programming and integer programming approaches and their collaboration in solving an assignment scheduling problem. *Constraints An Int. J.*, 1(3):245–264, 1997. doi:10.1007/BF00137871.
- [139] Andrew J. Davenport. Integrated maintenance scheduling for semiconductor manufacturing. In Andrea Lodi, Michela Milano, and Paolo Toth, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 7th International Conference, CPAIOR 2010, Bologna, Italy, June 14-18, 2010. Proceedings*, volume 6140 of *Lecture Notes in Computer Science*, pages 92–96. Springer, 2010. doi:10.1007/978-3-642-13520-0\_12.
- [140] Andrew J. Davenport, Jayant Kalagnanam, Chandra Reddy, Stuart Siegel, and John Hou. An application of constraint programming to generating detailed operations schedules for steel manufacturing. In Christian Bessiere, editor, *Principles and Practice of Constraint Programming - CP 2007, 13th International Conference, CP 2007, Providence, RI, USA, September 23-27, 2007, Proceedings*, volume 4741 of *Lecture Notes in Computer Science*, pages 64–76. Springer, 2007. doi:10.1007/978-3-540-74970-7\_7.
- [141] Levi Ribeiro de Abreu, Kennedy A. G. Araújo, Bruno de Athayde Prata, Marcelo Seido Nagano, and J. V. Moccellini. A new variable neighbourhood search with a constraint programming search strategy for the open shop scheduling problem with operation repetitions. *Engineering Optimization*, 54:1563 – 1582, 2021. URL: <https://api.semanticscholar.org/CorpusID:238794651>.
- [142] Levi Ribeiro de Abreu and Marcelo Seido Nagano. A new hybridization of adaptive large neighborhood search with constraint programming for open shop scheduling with sequence-dependent setup times. *Comput. Ind. Eng.*, 168:108128, 2022. URL: <https://doi.org/10.1016/j.cie.2022.108128>, doi:10.1016/J.CIE.2022.108128.

- [143] Levi Ribeiro de Abreu, Marcelo Seido Nagano, and Bruno A. Prata. A new two-stage constraint programming approach for open shop scheduling problem with machine blocking. *Int. J. Prod. Res.*, 61(24):8560–8579, 2023. doi:10.1080/00207543.2022.2154404.
- [144] Maria Garcia de la Banda, Peter J. Stuckey, and Geoffrey Chu. Solving talent scheduling with dynamic programming. *INFORMS J. Comput.*, 23(1):120–137, 2011. URL: <https://doi.org/10.1287/ijoc.1090.0378>, doi:10.1287/IJOC.1090.0378.
- [145] Rina Dechter, Itay Meiri, and Judea Pearl. Temporal constraint networks. *Artificial Intelligence*, 49(1–3):61–95, May 1991. URL: [http://dx.doi.org/10.1016/0004-3702\(91\)90006-6](http://dx.doi.org/10.1016/0004-3702(91)90006-6), doi:10.1016/0004-3702(91)90006-6.
- [146] Cyrille Dejemeppe. *Constraint programming algorithms and models for scheduling applications*. PhD thesis, Catholic University of Louvain, Louvain-la-Neuve, Belgium, 2016. URL: <https://hdl.handle.net/2078.1/178078>.
- [147] Cyrille Dejemeppe, Sascha Van Cauwelaert, and Pierre Schaus. The unary resource with transition times. In Gilles Pesant, editor, *Principles and Practice of Constraint Programming - 21st International Conference, CP 2015, Cork, Ireland, August 31 - September 4, 2015, Proceedings*, volume 9255 of *Lecture Notes in Computer Science*, pages 89–104. Springer, 2015. doi:10.1007/978-3-319-23219-5\\_7.
- [148] Cyrille Dejemeppe and Yves Deville. Continuously degrading resource and interval dependent activity durations in nuclear medicine patient scheduling. In Helmut Simonis, editor, *Integration of AI and OR Techniques in Constraint Programming - 11th International Conference, CPAIOR 2014, Cork, Ireland, May 19-23, 2014. Proceedings*, volume 8451 of *Lecture Notes in Computer Science*, pages 284–292. Springer, 2014. doi:10.1007/978-3-319-07046-9\\_20.
- [149] Sophie Demasse. *Méthodes hybrides de programmation par contraintes et programmation linéaire pour le problème d’ordonnancement de projet à contraintes de ressources. (Hybrid Constraint Programming-Integer Linear Programming approaches for the Resource-Constrained Project Scheduling Problem)*. PhD thesis, University of Avignon, France, 2003. URL: <https://tel.archives-ouvertes.fr/tel-00293564>.
- [150] Emir Demirovic and Peter J. Stuckey. Constraint programming for high school timetabling: A scheduling-based model with hot starts. In Willem Jan van Hoeve, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, volume 10848 of *Lecture Notes in Computer Science*, pages 135–152. Springer, 2018. doi:10.1007/978-3-319-93031-2\\_10.
- [151] Alban Derrien. *Ordonnancement cumulatif en programmation par contraintes : caractérisation énergétique des raisonnements et solutions robustes. (Cumulative scheduling in constraint programming : energetic characterization of reasoning and robust solutions)*. PhD thesis, École des mines de Nantes, France, 2015. URL: <https://tel.archives-ouvertes.fr/tel-01242789>.
- [152] Alban Derrien and Thierry Petit. A new characterization of relevant intervals for energetic reasoning. In Barry O’Sullivan, editor, *Principles and Practice of Constraint Programming - 20th International Conference, CP 2014, Lyon, France, September 8-12, 2014. Proceedings*, volume 8656 of *Lecture Notes in Computer Science*, pages 289–297. Springer, 2014. doi:10.1007/978-3-319-10428-7\\_22.
- [153] Alban Derrien, Thierry Petit, and Stéphane Zampelli. A declarative paradigm for robust cumulative scheduling. In Barry O’Sullivan, editor, *Principles and Practice of Constraint Programming - 20th International Conference, CP 2014, Lyon, France, September 8-12, 2014. Proceedings*, volume 8656 of *Lecture Notes in Computer Science*, pages 298–306. Springer, 2014. doi:10.1007/978-3-319-10428-7\\_23.
- [154] Stefano Di Alesio, Shiva Nejati, Lionel C. Briand, and Arnaud Gotlieb. Worst-case scheduling of software tasks - A constraint optimization model to support performance testing. In Barry O’Sullivan, editor, *Principles and Practice of Constraint Programming - 20th International Conference, CP 2014, Lyon, France, September 8-12, 2014. Proceedings*, volume 8656 of *Lecture Notes in Computer Science*, pages 813–830. Springer, 2014. doi:10.1007/978-3-319-10428-7\\_58.

- [155] Bistra Dilkina, Lei Duan, and William S. Havens. Extending systematic local search for job shop scheduling problems. In Peter van Beek, editor, *Principles and Practice of Constraint Programming - CP 2005, 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005, Proceedings*, volume 3709 of *Lecture Notes in Computer Science*, pages 762–766. Springer, 2005. doi:10.1007/11564751\60.
- [156] Mehmet Dincbas, Helmut Simonis, and Pascal Van Hentenryck. Solving large combinatorial problems in logic programming. *J. Log. Program.*, 8(1):75–93, 1990. doi:10.1016/0743-1066(90)90052-7.
- [157] Grégoire Doms and Pascal Van Hentenryck. Gap reduction techniques for online stochastic project scheduling. In Laurent Perron and Michael A. Trick, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 5th International Conference, CPAIOR 2008, Paris, France, May 20-23, 2008, Proceedings*, volume 5015 of *Lecture Notes in Computer Science*, pages 66–81. Springer, 2008. doi:10.1007/978-3-540-68155-7\8.
- [158] Seyed Hossein Hashemi Doulabi, Louis-Martin Rousseau, and Gilles Pesant. A constraint programming-based column generation approach for operating room planning and scheduling. In Helmut Simonis, editor, *Integration of AI and OR Techniques in Constraint Programming - 11th International Conference, CPAIOR 2014, Cork, Ireland, May 19-23, 2014. Proceedings*, volume 8451 of *Lecture Notes in Computer Science*, pages 455–463. Springer, 2014. doi:10.1007/978-3-319-07046-9\32.
- [159] Seyed Hossein Hashemi Doulabi, Louis-Martin Rousseau, and Gilles Pesant. A constraint-programming-based branch-and-price-and-cut approach for operating room planning and scheduling. *INFORMS J. Comput.*, 28(3):432–448, 2016. URL: <https://doi.org/10.1287/ijoc.2015.0686>, doi:10.1287/IJOC.2015.0686.
- [160] Emrah B. Edis and Ceyda Oguz. Parallel machine scheduling with additional resources: A lagrangian-based constraint programming approach. In Tobias Achterberg and J. Christopher Beck, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 8th International Conference, CPAIOR 2011, Berlin, Germany, May 23-27, 2011. Proceedings*, volume 6697 of *Lecture Notes in Computer Science*, pages 92–98. Springer, 2011. doi:10.1007/978-3-642-21311-3\10.
- [161] Nikolaos Efthymiou and Neil Yorke-Smith. Predicting the optimal period for cyclic hoist scheduling problems. In André A. Ciré, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 20th International Conference, CPAIOR 2023, Nice, France, May 29 - June 1, 2023, Proceedings*, volume 13884 of *Lecture Notes in Computer Science*, pages 238–253. Springer, 2023. doi:10.1007/978-3-031-33271-5\16.
- [162] Abdallah Elkhyari, Christelle Guéret, and Narendra Jussien. Conflict-based repair techniques for solving dynamic scheduling problems. In Pascal Van Hentenryck, editor, *Principles and Practice of Constraint Programming - CP 2002, 8th International Conference, CP 2002, Ithaca, NY, USA, September 9-13, 2002, Proceedings*, volume 2470 of *Lecture Notes in Computer Science*, pages 702–707. Springer, 2002. doi:10.1007/3-540-46135-3\49.
- [163] Abdallah Elkhyari, Christelle Guéret, and Narendra Jussien. Solving dynamic resource constraint project scheduling problems using new constraint programming tools. In Edmund K. Burke and Patrick De Causmaecker, editors, *Practice and Theory of Automated Timetabling IV, 4th International Conference, PATAT 2002, Gent, Belgium, August 21-23, 2002, Selected Revised Papers*, volume 2740 of *Lecture Notes in Computer Science*, pages 39–62. Springer, 2002. doi:10.1007/978-3-540-45157-0\3.
- [164] M. Anton Ertl and Andreas Krall. Optimal instruction scheduling using constraint logic programming. In Jan Maluszynski and Martin Wirsing, editors, *Programming Language Implementation and Logic Programming, 3rd International Symposium, PLILP’91, Passau, Germany, August 26-28, 1991, Proceedings*, volume 528 of *Lecture Notes in Computer Science*, pages 75–86. Springer, 1991. doi:10.1007/3-540-54444-5\89.
- [165] Teresa Escobet, Vicenç Puig, Joseba Quevedo, Pere Palà-Schönwälder, Juli Romera, and W. Adelman. Optimal batch scheduling of a multiproduct dairy process using a combined optimization/constraint programming approach. *Comput. Chem. Eng.*, 124:228–237, 2019. URL: <https://doi.org/10.1016/j.compchemeng.2018.08.040>, doi:10.1016/J.COMPCHENG.2018.08.040.

- [166] Caroline Even, Andreas Schutt, and Pascal Van Hentenryck. A constraint programming approach for non-preemptive evacuation scheduling. In Gilles Pesant, editor, *Principles and Practice of Constraint Programming - 21st International Conference, CP 2015, Cork, Ireland, August 31 - September 4, 2015, Proceedings*, volume 9255 of *Lecture Notes in Computer Science*, pages 574–591. Springer, 2015. doi:10.1007/978-3-319-23219-5\_40.
- [167] Caroline Even, Andreas Schutt, and Pascal Van Hentenryck. A constraint programming approach for non-preemptive evacuation scheduling. *CoRR*, abs/1505.02487, 2015. URL: <http://arxiv.org/abs/1505.02487>, arXiv:1505.02487.
- [168] Hamed Fahimi, Yanick Ouellet, and Claude-Guy Quimper. Linear-time filtering algorithms for the disjunctive constraint and a quadratic filtering algorithm for the cumulative not-first not-last. *Constraints An Int. J.*, 23(3):272–293, 2018. URL: <https://doi.org/10.1007/s10601-018-9282-9>, doi:10.1007/S10601-018-9282-9.
- [169] Moreno Falaschi, Maurizio Gabbrielli, Kim Marriott, and Catuscia Palamidessi. Constraint logic programming with dynamic scheduling: A semantics based on closure operators. *Inf. Comput.*, 137(1):41–67, 1997. URL: <https://doi.org/10.1006/inco.1997.2638>, doi:10.1006/INCO.1997.2638.
- [170] Abdellah El Fallahi, El Yaakoubi Anass, and Mohammad Cherkaoui. Tabu search and constraint programming-based approach for a real scheduling and routing problem. *International Journal of Applied Management Science*, 2020. URL: <https://api.semanticscholar.org/CorpusID:213449737>.
- [171] Huali Fan, Hegen Xiong, and Mark Goh. Genetic programming-based hyper-heuristic approach for solving dynamic job shop scheduling problem with extended technical precedence constraints. *Comput. Oper. Res.*, 134:105401, 2021. URL: <https://doi.org/10.1016/j.cor.2021.105401>, doi:10.1016/J.COR.2021.105401.
- [172] Azadeh Farsi, S. Ali Torabi, and Mahdi Mokhtarzadeh. Integrated surgery scheduling by constraint programming and meta-heuristics. *International Journal of Management Science and Engineering Management*, 18:292 – 304, 2022. URL: <https://api.semanticscholar.org/CorpusID:250301745>.
- [173] Soroush Fatemi-Anaraki, Reza Tavakkoli-Moghaddam, Mehdi Foumani, and Behdin Vahedi-Nouri. Scheduling of multi-robot job shop systems in dynamic environments: Mixed-integer linear programming and constraint programming approaches. *Omega*, 2022. URL: <https://api.semanticscholar.org/CorpusID:252524295>.
- [174] Séverine Betmbe Fetgo and Clémentin Tayou Djamégni. Horizontally elastic edge-finder algorithm for cumulative resource constraint revisited. *Oper. Res. Forum*, 3(4), 2022. URL: <https://doi.org/10.1007/s43069-022-00172-6>, doi:10.1007/S43069-022-00172-6.
- [175] Filippo Focacci, Philippe Laborie, and Wim Nuijten. Solving scheduling problems with setup times and alternative resources. In Steve A. Chien, Subbarao Kambhampati, and Craig A. Knoblock, editors, *Proceedings of the Fifth International Conference on Artificial Intelligence Planning Systems, Breckenridge, CO, USA, April 14-17, 2000*, pages 92–101. AAAI, 2000. URL: <http://www.aaai.org/Library/AIPS/2000/aips00-010.php>.
- [176] Daniel Fontaine, Laurent D. Michel, and Pascal Van Hentenryck. Parallel composition of scheduling solvers. In Claude-Guy Quimper, editor, *Integration of AI and OR Techniques in Constraint Programming - 13th International Conference, CPAIOR 2016, Banff, AB, Canada, May 29 - June 1, 2016, Proceedings*, volume 9676 of *Lecture Notes in Computer Science*, pages 159–169. Springer, 2016. doi:10.1007/978-3-319-33954-2\_12.
- [177] Jérôme Fortin, Pawel Zielinski, Didier Dubois, and Hélène Fargier. Interval analysis in scheduling. In Peter van Beek, editor, *Principles and Practice of Constraint Programming - CP 2005, 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005, Proceedings*, volume 3709 of *Lecture Notes in Computer Science*, pages 226–240. Springer, 2005. doi:10.1007/11564751\_19.



- [178] Jeremy Frank and Elif Kürklü. Mixed discrete and continuous algorithms for scheduling airborne astronomy observations. In Roman Barták and Michela Milano, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, Second International Conference, CPAIOR 2005, Prague, Czech Republic, May 30 - June 1, 2005, Proceedings*, volume 3524 of *Lecture Notes in Computer Science*, pages 183–200. Springer, 2005. doi:10.1007/11493853\_15.
- [179] Gerhard Friedrich, Melanie Frühstück, Vera Mersheeva, Anna Ryabokon, Maria Sander, Andreas Starzacher, and Erich Teppan. Representing production scheduling with constraint answer set programming. In Marco E. Lübbecke, Arie Koster, Peter Letmathe, Reinhard Madlener, Britta Peis, and Grit Walther, editors, *Operations Research Proceedings 2014, Selected Papers of the Annual International Conference of the German Operations Research Society (GOR), RWTH Aachen University, Germany, September 2-5, 2014*, pages 159–165. Springer, 2014. doi:10.1007/978-3-319-28697-6\_23.
- [180] Sara Frimodig and Christian Schulte. Models for radiation therapy patient scheduling. In Thomas Schiex and Simon de Givry, editors, *Principles and Practice of Constraint Programming - 25th International Conference, CP 2019, Stamford, CT, USA, September 30 - October 4, 2019, Proceedings*, volume 11802 of *Lecture Notes in Computer Science*, pages 421–437. Springer, 2019. doi:10.1007/978-3-030-30048-7\_25.
- [181] Nikolaus Frohner, Stephan Teuschl, and Günther R. Raidl. Casual employee scheduling with constraint programming and metaheuristics. In Roberto Moreno-Díaz, Franz Pichler, and Alexis Quesada-Arencibia, editors, *Computer Aided Systems Theory - EUROCAST 2019 - 17th International Conference, Las Palmas de Gran Canaria, Spain, February 17-22, 2019, Revised Selected Papers, Part I*, volume 12013 of *Lecture Notes in Computer Science*, pages 279–287. Springer, 2019. doi:10.1007/978-3-030-45093-9\_34.
- [182] Daniel Frost and Rina Dechter. Optimizing with constraints: A case study in scheduling maintenance of electric power units. In Michael J. Maher and Jean-Francois Puget, editors, *Principles and Practice of Constraint Programming - CP98, 4th International Conference, Pisa, Italy, October 26-30, 1998, Proceedings*, volume 1520 of *Lecture Notes in Computer Science*, page 469. Springer, 1998. doi:10.1007/3-540-49481-2\_40.
- [183] Cristian Galleguillos, Zeynep Kiziltan, Alina Sîrbu, and Özalp Babaoglu. Constraint programming-based job dispatching for modern HPC applications. In Thomas Schiex and Simon de Givry, editors, *Principles and Practice of Constraint Programming - 25th International Conference, CP 2019, Stamford, CT, USA, September 30 - October 4, 2019, Proceedings*, volume 11802 of *Lecture Notes in Computer Science*, pages 438–455. Springer, 2019. doi:10.1007/978-3-030-30048-7\_26.
- [184] Antoine Gargani and Philippe Refalo. An efficient model and strategy for the steel mill slab design problem. In Christian Bessiere, editor, *Principles and Practice of Constraint Programming - CP 2007, 13th International Conference, CP 2007, Providence, RI, USA, September 23-27, 2007, Proceedings*, volume 4741 of *Lecture Notes in Computer Science*, pages 77–89. Springer, 2007. doi:10.1007/978-3-540-74970-7\_8.
- [185] Antonio Garrido, Marlene Arangú, and Eva Onaindia. A constraint programming formulation for planning: from plan scheduling to plan generation. *J. Sched.*, 12(3):227–256, 2009. URL: <https://doi.org/10.1007/s10951-008-0083-7>, doi:10.1007/S10951-008-0083-7.
- [186] Antonio Garrido, Eva Onaindia, and Óscar Sapena. Planning and scheduling in an e-learning environment. A constraint-programming-based approach. *Eng. Appl. Artif. Intell.*, 21(5):733–743, 2008. URL: <https://doi.org/10.1016/j.engappai.2008.03.009>, doi:10.1016/J.ENGAPPAI.2008.03.009.
- [187] Steven Gay, Renaud Hartert, Christophe Lecoutre, and Pierre Schaus. Conflict ordering search for scheduling problems. In Gilles Pesant, editor, *Principles and Practice of Constraint Programming - 21st International Conference, CP 2015, Cork, Ireland, August 31 - September 4, 2015, Proceedings*, volume 9255 of *Lecture Notes in Computer Science*, pages 140–148. Springer, 2015. doi:10.1007/978-3-319-23219-5\_10.
- [188] Steven Gay, Renaud Hartert, and Pierre Schaus. Simple and scalable time-table filtering for the cumulative constraint. In Gilles Pesant, editor, *Principles and Practice of Constraint Programming - 21st International Conference, CP 2015, Cork, Ireland, August 31 - September 4, 2015, Proceedings*, volume 9255 of *Lecture Notes in Computer Science*, pages 149–157. Springer, 2015. doi:10.1007/978-3-319-23219-5\_11.

- [189] Steven Gay, Renaud Hartert, and Pierre Schaus. Time-table disjunctive reasoning for the cumulative constraint. In Laurent Michel, editor, *Integration of AI and OR Techniques in Constraint Programming - 12th International Conference, CPAIOR 2015, Barcelona, Spain, May 18-22, 2015, Proceedings*, volume 9075 of *Lecture Notes in Computer Science*, pages 157–172. Springer, 2015. doi:10.1007/978-3-319-18008-3\_11.
- [190] Steven Gay, Pierre Schaus, and Vivian De Smedt. Continuous casting scheduling with constraint programming. In Barry O’Sullivan, editor, *Principles and Practice of Constraint Programming - 20th International Conference, CP 2014, Lyon, France, September 8-12, 2014. Proceedings*, volume 8656 of *Lecture Notes in Computer Science*, pages 831–845. Springer, 2014. doi:10.1007/978-3-319-10428-7\_59.
- [191] Ridvan Gedik, Darshan Kalathia, Gokhan Egilmez, and Emre Kirac. A constraint programming approach for solving unrelated parallel machine scheduling problem. *Comput. Ind. Eng.*, 121:139–149, 2018. URL: <https://doi.org/10.1016/j.cie.2018.05.014>, doi:10.1016/J.CIE.2018.05.014.
- [192] Tobias Geibinger, Lucas Kletzander, Matthias Krainz, Florian Mischek, Nysret Musliu, and Felix Winter. Physician scheduling during a pandemic. In Peter J. Stuckey, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 18th International Conference, CPAIOR 2021, Vienna, Austria, July 5-8, 2021, Proceedings*, volume 12735 of *Lecture Notes in Computer Science*, pages 456–465. Springer, 2021. doi:10.1007/978-3-030-78230-6\_29.
- [193] Tobias Geibinger, Florian Mischek, and Nysret Musliu. Investigating constraint programming and hybrid methods for real world industrial test laboratory scheduling. *CoRR*, abs/1911.04766, 2019. URL: <http://arxiv.org/abs/1911.04766>, arXiv:1911.04766.
- [194] Tobias Geibinger, Florian Mischek, and Nysret Musliu. Investigating constraint programming for real world industrial test laboratory scheduling. In Louis-Martin Rousseau and Kostas Stergiou, editors, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 16th International Conference, CPAIOR 2019, Thessaloniki, Greece, June 4-7, 2019, Proceedings*, volume 11494 of *Lecture Notes in Computer Science*, pages 304–319. Springer, 2019. doi:10.1007/978-3-030-19212-9\_20.
- [195] Tobias Geibinger, Florian Mischek, and Nysret Musliu. Constraint logic programming for real-world test laboratory scheduling. In *Thirty-Fifth AAAI Conference on Artificial Intelligence, AAAI 2021, Thirty-Third Conference on Innovative Applications of Artificial Intelligence, IAAI 2021, The Eleventh Symposium on Educational Advances in Artificial Intelligence, EAAI 2021, Virtual Event, February 2-9, 2021*, pages 6358–6366. AAAI Press, 2021. URL: <https://doi.org/10.1609/aaai.v35i7.16789>, doi:10.1609/AAAI.V35I7.16789.
- [196] Marc Geitz, Cristian Grozea, Wolfgang Steigerwald, Robin Stöhr, and Armin Wolf. Solving the extended job shop scheduling problem with agvs - classical and quantum approaches. In Pierre Schaus, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 19th International Conference, CPAIOR 2022, Los Angeles, CA, USA, June 20-23, 2022, Proceedings*, volume 13292 of *Lecture Notes in Computer Science*, pages 120–137. Springer, 2022. doi:10.1007/978-3-031-08011-1\_10.
- [197] Mirco Gelain, Maria Silvia Pini, Francesca Rossi, Kristen Brent Venable, and Toby Walsh. A local search approach for incomplete soft constraint problems: Experimental results on meeting scheduling problems. In Domenico Salvagnin and Michele Lombardi, editors, *Integration of AI and OR Techniques in Constraint Programming - 14th International Conference, CPAIOR 2017, Padua, Italy, June 5-8, 2017, Proceedings*, volume 10335 of *Lecture Notes in Computer Science*, pages 403–418. Springer, 2017. doi:10.1007/978-3-319-59776-8\_32.
- [198] Ulrich Geske. Railway scheduling with declarative constraint programming. In Masanobu Umeda, Armin Wolf, Oskar Bartenstein, Ulrich Geske, Dietmar Seipel, and Osamu Takata, editors, *Declarative Programming for Knowledge Management, 16th International Conference on Applications of Declarative Programming and Knowledge Management, INAP 2005, Fukuoka, Japan, October 22-24, 2005, Revised Selected Papers*, volume 4369 of *Lecture Notes in Computer Science*, pages 117–134. Springer, 2005. doi:10.1007/11963578\_10.

- [199] Katherine Giles and Willem-Jan van Hoeve. Solving a supply-delivery scheduling problem with constraint programming. In Michel Rueher, editor, *Principles and Practice of Constraint Programming - 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016, Proceedings*, volume 9892 of *Lecture Notes in Computer Science*, pages 602–617. Springer, 2016. doi:10.1007/978-3-319-44953-1\\_38.
- [200] Vincent Gingras and Claude-Guy Quimper. Generalizing the edge-finder rule for the cumulative constraint. In Subbarao Kambhampati, editor, *Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence, IJCAI 2016, New York, NY, USA, 9-15 July 2016*, pages 3103–3109. IJCAI/AAAI Press, 2016. URL: <http://www.ijcai.org/Abstract/16/440>.
- [201] Daniel Godard, Philippe Laborie, and Wim Nuijten. Randomized large neighborhood search for cumulative scheduling. In Susanne Biundo, Karen L. Myers, and Kanna Rajan, editors, *Proceedings of the Fifteenth International Conference on Automated Planning and Scheduling (ICAPS 2005), June 5-10 2005, Monterey, California, USA*, pages 81–89. AAAI, 2005. URL: <http://www.aaai.org/Library/ICAPS/2005/icaps05-009.php>.
- [202] Arthur Godet. *Sur le tri de tâches pour résoudre des problèmes d’ordonnancement avec la programmation par contraintes. (On the use of tasks ordering to solve scheduling problems with constraint programming)*. PhD thesis, IMT Atlantique Bretagne Pays de la Loire, Brest, France, 2021. URL: <https://tel.archives-ouvertes.fr/tel-03681868>.
- [203] Arthur Godet, Xavier Lorca, Emmanuel Hebrard, and Gilles Simonin. Using approximation within constraint programming to solve the parallel machine scheduling problem with additional unit resources. In *The Thirty-Fourth AAAI Conference on Artificial Intelligence, AAAI 2020, The Thirty-Second Innovative Applications of Artificial Intelligence Conference, IAAI 2020, The Tenth AAAI Symposium on Educational Advances in Artificial Intelligence, EAAI 2020, New York, NY, USA, February 7-12, 2020*, pages 1512–1519. AAAI Press, 2020. URL: <https://doi.org/10.1609/aaai.v34i02.5510>, doi:10.1609/AAAI.V34I02.5510.
- [204] Vikas Goel, M. Slusky, Willem-Jan van Hoeve, Kevin C. Furman, and Yufen Shao. Constraint programming for LNG ship scheduling and inventory management. *Eur. J. Oper. Res.*, 241(3):662–673, 2015. URL: <https://doi.org/10.1016/j.ejor.2014.09.048>, doi:10.1016/J.EJOR.2014.09.048.
- [205] Burak Gökgür, Brahim Hnich, and Selin Özpeynirci. Parallel machine scheduling with tool loading: a constraint programming approach. *Int. J. Prod. Res.*, 56(16):5541–5557, 2018. doi:10.1080/00207543.2017.1421781.
- [206] Adrian Goldwaser and Andreas Schutt. Optimal torpedo scheduling. In J. Christopher Beck, editor, *Principles and Practice of Constraint Programming - 23rd International Conference, CP 2017, Melbourne, VIC, Australia, August 28 - September 1, 2017, Proceedings*, volume 10416 of *Lecture Notes in Computer Science*, pages 338–353. Springer, 2017. doi:10.1007/978-3-319-66158-2\\_22.
- [207] Adrian Goldwaser and Andreas Schutt. Optimal torpedo scheduling. *J. Artif. Intell. Res.*, 63:955–986, 2018. URL: <https://doi.org/10.1613/jair.1.11268>, doi:10.1613/JAIR.1.11268.
- [208] Hans-Joachim Goltz. Reducing domains for search in CLP(FD) and its application to job-shop scheduling. In Ugo Montanari and Francesca Rossi, editors, *Principles and Practice of Constraint Programming - CP’95, First International Conference, CP’95, Cassis, France, September 19-22, 1995, Proceedings*, volume 976 of *Lecture Notes in Computer Science*, pages 549–562. Springer, 1995. doi:10.1007/3-540-60299-2\\_33.
- [209] Carla P. Gomes, Willem Jan van Hoeve, and Bart Selman. Constraint programming for distributed planning and scheduling. In *Distributed Plan and Schedule Management, Papers from the 2006 AAAI Spring Symposium, Technical Report SS-06-04, Stanford, California, USA, March 27-29, 2006*, pages 157–158. AAAI, 2006. URL: <http://www.aaai.org/Library/Symposia/Spring/2006/ss06-04-024.php>.
- [210] Diarmuid Grimes and Emmanuel Hebrard. Job shop scheduling with setup times and maximal time-lags: A simple constraint programming approach. In Andrea Lodi, Michela Milano, and Paolo Toth, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 7th*

- International Conference, CPAIOR 2010, Bologna, Italy, June 14-18, 2010. Proceedings*, volume 6140 of *Lecture Notes in Computer Science*, pages 147–161. Springer, 2010. doi:10.1007/978-3-642-13520-0\\_19.
- [211] Diarmuid Grimes and Emmanuel Hebrard. Models and strategies for variants of the job shop scheduling problem. In Jimmy Ho-Man Lee, editor, *Principles and Practice of Constraint Programming - CP 2011 - 17th International Conference, CP 2011, Perugia, Italy, September 12-16, 2011. Proceedings*, volume 6876 of *Lecture Notes in Computer Science*, pages 356–372. Springer, 2011. doi:10.1007/978-3-642-23786-7\\_28.
  - [212] Diarmuid Grimes and Emmanuel Hebrard. Solving variants of the job shop scheduling problem through conflict-directed search. *INFORMS J. Comput.*, 27(2):268–284, 2015. URL: <https://doi.org/10.1287/ijoc.2014.0625>, doi:10.1287/IJOC.2014.0625.
  - [213] Diarmuid Grimes, Emmanuel Hebrard, and Arnaud Malapert. Closing the open shop: Contradicting conventional wisdom. In Ian P. Gent, editor, *Principles and Practice of Constraint Programming - CP 2009, 15th International Conference, CP 2009, Lisbon, Portugal, September 20-24, 2009, Proceedings*, volume 5732 of *Lecture Notes in Computer Science*, pages 400–408. Springer, 2009. doi:10.1007/978-3-642-04244-7\\_33.
  - [214] Diarmuid Grimes, Georgiana Ifrim, Barry O’Sullivan, and Helmut Simonis. Analyzing the impact of electricity price forecasting on energy cost-aware scheduling. *Sustain. Comput. Informatics Syst.*, 4(4):276–291, 2014. URL: <https://doi.org/10.1016/j.suscom.2014.08.009>, doi:10.1016/J.SUSCOM.2014.08.009.
  - [215] Lucas Groleaz, Samba Ndojh Ndiaye, and Christine Solnon. ACO with automatic parameter selection for a scheduling problem with a group cumulative constraint. In Carlos Artemio Coello Coello, editor, *GECCO ’20: Genetic and Evolutionary Computation Conference, Cancún Mexico, July 8-12, 2020*, pages 13–21. ACM, 2020. doi:10.1145/3377930.3389818.
  - [216] Lucas Groleaz, Samba Ndojh Ndiaye, and Christine Solnon. Solving the group cumulative scheduling problem with CPO and ACO. In Helmut Simonis, editor, *Principles and Practice of Constraint Programming - 26th International Conference, CP 2020, Louvain-la-Neuve, Belgium, September 7-11, 2020, Proceedings*, volume 12333 of *Lecture Notes in Computer Science*, pages 620–636. Springer, 2020. doi:10.1007/978-3-030-58475-7\\_36.
  - [217] Flavius Gruian and Krzysztof Kuchcinski. Operation binding and scheduling for low power using constraint logic programming. In *24th EUROMICRO ’98 Conference, Engineering Systems and Software for the Next Decade, 25-27 August 1998, Vasteras, Sweden*, pages 10083–10090. IEEE Computer Society, 1998. doi:10.1109/EURMIC.1998.711781.
  - [218] Hanyu Gu, Andreas Schutt, and Peter J. Stuckey. A lagrangian relaxation based forward-backward improvement heuristic for maximising the net present value of resource-constrained projects. In Carla P. Gomes and Meinolf Sellmann, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 10th International Conference, CPAIOR 2013, Yorktown Heights, NY, USA, May 18-22, 2013. Proceedings*, volume 7874 of *Lecture Notes in Computer Science*, pages 340–346. Springer, 2013. doi:10.1007/978-3-642-38171-3\\_24.
  - [219] Hanyu Gu, Peter J. Stuckey, and Mark G. Wallace. Maximising the net present value of large resource-constrained projects. In Michela Milano, editor, *Principles and Practice of Constraint Programming - 18th International Conference, CP 2012, Québec City, QC, Canada, October 8-12, 2012. Proceedings*, volume 7514 of *Lecture Notes in Computer Science*, pages 767–781. Springer, 2012. doi:10.1007/978-3-642-33558-7\\_55.
  - [220] Seyda Gür, Mehmet Pinarbasi, Hacı Mehmet Alakas, and Tamer Eren. Operating room scheduling with surgical team: a new approach with constraint programming and goal programming. *Central Eur. J. Oper. Res.*, 31(4):1061–1085, 2023. URL: <https://doi.org/10.1007/s10100-022-00835-z>, doi:10.1007/S10100-022-00835-Z.
  - [221] Nizar El Hachemi, Michel Gendreau, and Louis-Martin Rousseau. A hybrid constraint programming approach to the log-truck scheduling problem. *Ann. Oper. Res.*, 184(1):163–178, 2011. URL: <https://doi.org/10.1007/s10479-010-0698-x>, doi:10.1007/S10479-010-0698-X.

- [222] Andy Ham. Integrated scheduling of m-truck, m-drone, and m-depot constrained by time-window, drop-pickup, and m-visit using constraint programming. *Transportation Research Part C: Emerging Technologies*, 2018. URL: <https://api.semanticscholar.org/CorpusID:116853255>.
- [223] Andy Ham, Myoung-Ju Park, and Kyung Min Kim. Energy-aware flexible job shop scheduling using mixed integer programming and constraint programming. *Mathematical Problems in Engineering*, 2021. URL: <https://api.semanticscholar.org/CorpusID:237898414>.
- [224] Andy M. Ham and Eray Cakici. Flexible job shop scheduling problem with parallel batch processing machines: Mip and cp approaches. *Computers & Industrial Engineering*, 102:160–165, December 2016. URL: <http://dx.doi.org/10.1016/j.cie.2016.11.001>, doi:10.1016/j.cie.2016.11.001.
- [225] Claire Hanen, Alix Munier Kordon, and Theo Pedersen. Two deadline reduction algorithms for scheduling dependent tasks on parallel processors. In Peter J. Stuckey, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 18th International Conference, CPAIOR 2021, Vienna, Austria, July 5-8, 2021, Proceedings*, volume 12735 of *Lecture Notes in Computer Science*, pages 214–230. Springer, 2021. doi:10.1007/978-3-030-78230-6\_14.
- [226] Iiro Harjunoski and Ignacio E. Grossmann. Decomposition techniques for multistage scheduling problems using mixed-integer and constraint programming methods. *Computers & Chemical Engineering*, 26(11):1533–1552, November 2002. URL: [http://dx.doi.org/10.1016/S0098-1354\(02\)00100-X](http://dx.doi.org/10.1016/S0098-1354(02)00100-X), doi:10.1016/S0098-1354(02)00100-X.
- [227] Sönke Hartmann and Dirk Briskorn. A survey of variants and extensions of the resource-constrained project scheduling problem. *European Journal of Operational Research*, 207(1):1–14, November 2010. URL: <http://dx.doi.org/10.1016/j.ejor.2009.11.005>, doi:10.1016/j.ejor.2009.11.005.
- [228] Viktoria A. Hauder, Andreas Beham, Sebastian Raggl, Sophie N. Parragh, and Michael Affenzeller. On constraint programming for a new flexible project scheduling problem with resource constraints. *CoRR*, abs/1902.09244, 2019. URL: <http://arxiv.org/abs/1902.09244>, arXiv:1902.09244.
- [229] Shan He, Mark Wallace, Graeme Gange, Ariel Liebman, and Campbell Wilson. A fast and scalable algorithm for scheduling large numbers of devices under real-time pricing. In John N. Hooker, editor, *Principles and Practice of Constraint Programming - 24th International Conference, CP 2018, Lille, France, August 27-31, 2018, Proceedings*, volume 11008 of *Lecture Notes in Computer Science*, pages 649–666. Springer, 2018. doi:10.1007/978-3-319-98334-9\_42.
- [230] Emmanuel Hebrard, Christian Artigues, Pierre Lopez, Arnaud Lussion, Steve A. Chien, Adrien Maillard, and Gregg R. Rabideau. An efficient approach to data transfer scheduling for long range space exploration. In Luc De Raedt, editor, *Proceedings of the Thirty-First International Joint Conference on Artificial Intelligence, IJCAI 2022, Vienna, Austria, 23-29 July 2022*, pages 4635–4641. ijcai.org, 2022. URL: <https://doi.org/10.24963/ijcai.2022/643>, doi:10.24963/IJCAI.2022/643.
- [231] Emmanuel Hebrard, Marie-José Huguet, Nicolas Jozefowicz, Adrien Maillard, Cédric Pralet, and Gérard Verfaillie. Approximation of the parallel machine scheduling problem with additional unit resources. *Discret. Appl. Math.*, 215:126–135, 2016. URL: <https://doi.org/10.1016/j.dam.2016.07.003>, doi:10.1016/J.DAM.2016.07.003.
- [232] Emmanuel Hebrard, Paul Tyler, and Toby Walsh. Computing super-schedules. In Peter van Beek, editor, *Principles and Practice of Constraint Programming - CP 2005, 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005, Proceedings*, volume 3709 of *Lecture Notes in Computer Science*, pages 879–879. Springer, 2005. doi:10.1007/11564751\_117.
- [233] Aliza R. Heching and John N. Hooker. Scheduling home hospice care with logic-based benders decomposition. In Claude-Guy Quimper, editor, *Integration of AI and OR Techniques in Constraint Programming - 13th International Conference, CPAIOR 2016, Banff, AB, Canada, May 29 - June 1, 2016, Proceedings*, volume 9676 of *Lecture Notes in Computer Science*, pages 187–197. Springer, 2016. doi:10.1007/978-3-319-33954-2\_14.

- [234] Ivan Heckman and J. Christopher Beck. Understanding the behavior of solution-guided search for job-shop scheduling. *J. Sched.*, 14(2):121–140, 2011. URL: <https://doi.org/10.1007/s10951-009-0113-0>, doi:10.1007/S10951-009-0113-0.
- [235] Stefan Heinz and J. Christopher Beck. Reconsidering mixed integer programming and mip-based hybrids for scheduling. In Nicolas Beldiceanu, Narendra Jussien, and Eric Pinson, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 9th International Conference, CPAIOR 2012, Nantes, France, May 28 - June 1, 2012. Proceedings*, volume 7298 of *Lecture Notes in Computer Science*, pages 211–227. Springer, 2012. doi:10.1007/978-3-642-29828-8\_14.
- [236] Stefan Heinz, Wen-Yang Ku, and J. Christopher Beck. Recent improvements using constraint integer programming for resource allocation and scheduling. In Carla P. Gomes and Meinolf Sellmann, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 10th International Conference, CPAIOR 2013, Yorktown Heights, NY, USA, May 18-22, 2013. Proceedings*, volume 7874 of *Lecture Notes in Computer Science*, pages 12–27. Springer, 2013. doi:10.1007/978-3-642-38171-3\_2.
- [237] Stefan Heinz, Thomas Schlechte, Rüdiger Stephan, and Michael Winkler. Solving steel mill slab design problems. *Constraints An Int. J.*, 17(1):39–50, 2012. URL: <https://doi.org/10.1007/s10601-011-9113-8>, doi:10.1007/S10601-011-9113-8.
- [238] Stefan Heinz and Jens Schulz. Explanations for the cumulative constraint: An experimental study. In Panos M. Pardalos and Steffen Rebennack, editors, *Experimental Algorithms - 10th International Symposium, SEA 2011, Kolimpari, Chania, Crete, Greece, May 5-7, 2011. Proceedings*, volume 6630 of *Lecture Notes in Computer Science*, pages 400–409. Springer, 2011. doi:10.1007/978-3-642-20662-7\_34.
- [239] Stefan Heinz, Jens Schulz, and J. Christopher Beck. Using dual presolving reductions to reformulate cumulative constraints. *Constraints An Int. J.*, 18(2):166–201, 2013. URL: <https://doi.org/10.1007/s10601-012-9136-9>, doi:10.1007/S10601-012-9136-9.
- [240] Vilém Heinz, Antonín Novák, Marek Vlk, and Zdenek Hanzálek. Constraint programming and constructive heuristics for parallel machine scheduling with sequence-dependent setups and common servers. *Comput. Ind. Eng.*, 172(Part):108586, 2022. URL: <https://doi.org/10.1016/j.cie.2022.108586>, doi:10.1016/J.CIE.2022.108586.
- [241] Vilém Heinz, Antonín Novák, Marek Vlk, and Zdenek Hanzálek. Constraint programming and constructive heuristics for parallel machine scheduling with sequence-dependent setups and common servers. *CoRR*, abs/2305.19888, 2023. URL: <https://doi.org/10.48550/arXiv.2305.19888>, arXiv:2305.19888, doi:10.48550/ARXIV.2305.19888.
- [242] Susanne Heipeke, Yves Colombani, Cristina C. B. Cavalcante, and Cid C. de Souza. Scheduling under labour resource constraints. *Constraints An Int. J.*, 5(4):415–422, 2000. doi:10.1023/A:1009860311452.
- [243] Pascal Van Hentenryck and Laurent Michel. Scheduling abstractions for local search. In Jean-Charles Régin and Michel Rueher, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, First International Conference, CPAIOR 2004, Nice, France, April 20-22, 2004, Proceedings*, volume 3011 of *Lecture Notes in Computer Science*, pages 319–334. Springer, 2004. doi:10.1007/978-3-540-24664-0\_22.
- [244] Pascal Van Hentenryck and Laurent Michel. The steel mill slab design problem revisited. In Laurent Perron and Michael A. Trick, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 5th International Conference, CPAIOR 2008, Paris, France, May 20-23, 2008, Proceedings*, volume 5015 of *Lecture Notes in Computer Science*, pages 377–381. Springer, 2008. doi:10.1007/978-3-540-68155-7\_41.
- [245] Fabien Hermenier, Sophie Demasse, and Xavier Lorca. Bin repacking scheduling in virtualized datacenters. In Jimmy Ho-Man Lee, editor, *Principles and Practice of Constraint Programming - CP 2011 - 17th International Conference, CP 2011, Perugia, Italy, September 12-16, 2011. Proceedings*, volume 6876 of *Lecture Notes in Computer Science*, pages 27–41. Springer, 2011. doi:10.1007/978-3-642-23786-7\_5.

- [246] Alessandro Hill, Jordan Ticktin, and Thomas W. M. Vossen. A computational study of constraint programming approaches for resource-constrained project scheduling with autonomous learning effects. In Peter J. Stuckey, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 18th International Conference, CPAIOR 2021, Vienna, Austria, July 5-8, 2021, Proceedings*, volume 12735 of *Lecture Notes in Computer Science*, pages 26–44. Springer, 2021. doi:10.1007/978-3-030-78230-6\_2.
- [247] Te-Wei Ho, Jia-Sheng Yao, Yao-Ting Chang, Feipei Lai, Jui-Fen Lai, Sue-Min Chu, Wan-Chung Liao, and Han-Mo Chiu. A platform for dynamic optimal nurse scheduling based on integer linear programming along with multiple criteria constraints. In *Proceedings of the 2018 Artificial Intelligence and Cloud Computing Conference, AICCC 2018, Tokyo, Japan, December 21-23, 2018*, pages 145–150. ACM, 2018. doi:10.1145/3299819.3299825.
- [248] John N. Hooker. *Logic Based Methods for Optimization: Combining Optimization and Constraint Satisfaction*. Wiley, May 2000. URL: <http://dx.doi.org/10.1002/9781118033036>, doi:10.1002/9781118033036.
- [249] John N. Hooker. A hybrid method for planning and scheduling. In Mark Wallace, editor, *Principles and Practice of Constraint Programming - CP 2004, 10th International Conference, CP 2004, Toronto, Canada, September 27 - October 1, 2004, Proceedings*, volume 3258 of *Lecture Notes in Computer Science*, pages 305–316. Springer, 2004. doi:10.1007/978-3-540-30201-8\_24.
- [250] John N. Hooker. A hybrid method for the planning and scheduling. *Constraints An Int. J.*, 10(4):385–401, 2005. URL: <https://doi.org/10.1007/s10601-005-2812-2>, doi:10.1007/S10601-005-2812-2.
- [251] John N. Hooker. Planning and scheduling to minimize tardiness. In Peter van Beek, editor, *Principles and Practice of Constraint Programming - CP 2005, 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005, Proceedings*, volume 3709 of *Lecture Notes in Computer Science*, pages 314–327. Springer, 2005. doi:10.1007/11564751\_25.
- [252] John N. Hooker. An integrated method for planning and scheduling to minimize tardiness. *Constraints An Int. J.*, 11(2-3):139–157, 2006. URL: <https://doi.org/10.1007/s10601-006-8060-2>, doi:10.1007/S10601-006-8060-2.
- [253] John N. Hooker. Planning and scheduling by logic-based benders decomposition. *Operations Research*, 55(3):588–602, June 2007. URL: <http://dx.doi.org/10.1287/opre.1060.0371>, doi:10.1287/opre.1060.0371.
- [254] John N. Hooker. Job sequencing bounds from decision diagrams. In J. Christopher Beck, editor, *Principles and Practice of Constraint Programming - 23rd International Conference, CP 2017, Melbourne, VIC, Australia, August 28 - September 1, 2017, Proceedings*, volume 10416 of *Lecture Notes in Computer Science*, pages 565–578. Springer, 2017. doi:10.1007/978-3-319-66158-2\_36.
- [255] John N. Hooker. Logic-Based Benders Decomposition for Large-Scale Optimization. In Jesús M. Velásquez-Bermúdez, Marzieh Khakifirooz, and Mahdi Fathi, editors, *Large Scale Optimization in Supply Chains and Smart Manufacturing*, Springer Optimization and Its Applications, pages 1–26. Springer, July 2019. URL: [https://ideas.repec.org/h/spr/spochp/978-3-030-22788-3\\_1.html](https://ideas.repec.org/h/spr/spochp/978-3-030-22788-3_1.html), doi:10.1007/978-3-030-22788-3.
- [256] John N. Hooker and Gregor Ottosson. Logic-based benders decomposition. *Mathematical Programming*, 96(1):33–60, April 2003. URL: <http://dx.doi.org/10.1007/s10107-003-0375-9>, doi:10.1007/s10107-003-0375-9.
- [257] John N. Hooker and Willem Jan van Hoeve. Constraint programming and operations research. *Constraints An Int. J.*, 23(2):172–195, 2018. URL: <https://doi.org/10.1007/s10601-017-9280-3>, doi:10.1007/S10601-017-9280-3.

- [258] John N. Hooker and Hong Yan. A relaxation of the cumulative constraint. In Pascal Van Hentenryck, editor, *Principles and Practice of Constraint Programming - CP 2002, 8th International Conference, CP 2002, Ithaca, NY, USA, September 9-13, 2002, Proceedings*, volume 2470 of *Lecture Notes in Computer Science*, pages 686–690. Springer, 2002. doi:10.1007/3-540-46135-3\_46.
- [259] Vinasétan Ratheil Houndji, Pierre Schaus, Laurence A. Wolsey, and Yves Deville. The stockingcost constraint. In Barry O’Sullivan, editor, *Principles and Practice of Constraint Programming - 20th International Conference, CP 2014, Lyon, France, September 8-12, 2014. Proceedings*, volume 8656 of *Lecture Notes in Computer Science*, pages 382–397. Springer, 2014. doi:10.1007/978-3-319-10428-7\_29.
- [260] Felix Hübner, Patrick Gerhards, Christian Stürck, and Rebekka Volk. Solving the nuclear dismantling project scheduling problem by combining mixed-integer and constraint programming techniques and metaheuristics. *J. Sched.*, 24(3):269–290, 2021. URL: <https://doi.org/10.1007/s10951-021-00682-x>, doi:10.1007/S10951-021-00682-X.
- [261] Georgiana Ifrim, Barry O’Sullivan, and Helmut Simonis. Properties of energy-price forecasts for scheduling. In Michela Milano, editor, *Principles and Practice of Constraint Programming - 18th International Conference, CP 2012, Québec City, QC, Canada, October 8-12, 2012. Proceedings*, volume 7514 of *Lecture Notes in Computer Science*, pages 957–972. Springer, 2012. doi:10.1007/978-3-642-33558-7\_68.
- [262] Eyüp Ensar Isik, Seyda Topaloglu Yildiz, and Özge Satir Akpunar. Constraint programming models for the hybrid flow shop scheduling problem and its extensions. *Soft Comput.*, 27(24):18623–18650, 2023. URL: <https://doi.org/10.1007/s00500-023-09086-9>, doi:10.1007/S00500-023-09086-9.
- [263] Vipul Jain and Ignacio E. Grossmann. Algorithms for hybrid milp/cp models for a class of optimization problems. *INFORMS Journal on Computing*, 13(4):258–276, November 2001. URL: <http://dx.doi.org/10.1287/ijoc.13.4.258.9733>, doi:10.1287/ijoc.13.4.258.9733.
- [264] Raf Jans. Solving lot-sizing problems on parallel identical machines using symmetry-breaking constraints. *INFORMS Journal on Computing*, 21(1):123–136, February 2009. URL: <http://dx.doi.org/10.1287/ijoc.1080.0283>, doi:10.1287/ijoc.1080.0283.
- [265] Jan Jelínek and Roman Barták. Using constraint logic programming to schedule solar array operations on the international space station. In Marco Gavanelli and John H. Reppy, editors, *Practical Aspects of Declarative Languages - 18th International Symposium, PADL 2016, St. Petersburg, FL, USA, January 18-19, 2016. Proceedings*, volume 9585 of *Lecture Notes in Computer Science*, pages 3–12. Springer, 2016. doi:10.1007/978-3-319-28228-2\_1.
- [266] Jean Jourdan, François Fages, Didier Rozzonelli, and Alain Demeure. Data alignment and task scheduling on parallel machines using concurrent constraint model-based programming. In Maurice Bruynooghe, editor, *Logic Programming, Proceedings of the 1994 International Symposium, Ithaca, New York, USA, November 13-17, 1994*, page 678. MIT Press, 1994.
- [267] Pascal Jungblut and Dieter Kranzlmüller. Optimal schedules for high-level programming environments on fpgas with constraint programming. In *IEEE International Parallel and Distributed Processing Symposium, IPDPS Workshops 2022, Lyon, France, May 30 - June 3, 2022*, pages 96–99. IEEE, 2022. doi:10.1109/IPDPSW55747.2022.00025.
- [268] Carla Juvin, Emmanuel Hebrard, Laurent Houssin, and Pierre Lopez. An efficient constraint programming approach to preemptive job shop scheduling. In Roland H. C. Yap, editor, *29th International Conference on Principles and Practice of Constraint Programming, CP 2023, August 27-31, 2023, Toronto, Canada*, volume 280 of *LIPICs*, pages 19:1–19:16. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2023. URL: <https://doi.org/10.4230/LIPICs.CP.2023.19>, doi:10.4230/LIPICs.CP.2023.19.
- [269] Carla Juvin, Laurent Houssin, and Pierre Lopez. Constraint programming for the robust two-machine flow-shop scheduling problem with budgeted uncertainty. In André A. Ciré, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 20th International Conference, CPAIOR*



- 2023, Nice, France, May 29 - June 1, 2023, *Proceedings*, volume 13884 of *Lecture Notes in Computer Science*, pages 354–369. Springer, 2023. doi:10.1007/978-3-031-33271-5\\_23.
- [270] Olli Kamarainen and Hani El Sakkout. Local probing applied to scheduling. In Pascal Van Hentenryck, editor, *Principles and Practice of Constraint Programming - CP 2002, 8th International Conference, CP 2002, Ithaca, NY, USA, September 9-13, 2002, Proceedings*, volume 2470 of *Lecture Notes in Computer Science*, pages 155–171. Springer, 2002. doi:10.1007/3-540-46135-3\\_11.
- [271] Roger Kameugne. Propagation techniques of resource constraint for cumulative scheduling. *Constraints An Int. J.*, 20(4):506–507, 2015. URL: <https://doi.org/10.1007/s10601-015-9227-5>, doi:10.1007/S10601-015-9227-5.
- [272] Roger Kameugne, Séverine Betmbe Fetgo, Vincent Gingras, Yanick Ouellet, and Claude-Guy Quimper. Horizontally elastic not-first/not-last filtering algorithm for cumulative resource constraint. In Willem Jan van Hoeve, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, volume 10848 of *Lecture Notes in Computer Science*, pages 316–332. Springer, 2018. doi:10.1007/978-3-319-93031-2\\_23.
- [273] Roger Kameugne, Séverine Betmbe Fetgo, Thierry Noulamo, and Clémentin Tayou Djamégni. Horizontally elastic edge finder rule for cumulative constraint based on slack and density. In Roland H. C. Yap, editor, *29th International Conference on Principles and Practice of Constraint Programming, CP 2023, August 27-31, 2023, Toronto, Canada*, volume 280 of *LIPICs*, pages 20:1–20:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2023. URL: <https://doi.org/10.4230/LIPICs.CP.2023.20>, doi:10.4230/LIPICs.CP.2023.20.
- [274] Roger Kameugne, Laure Pauline Fotso, Joseph D. Scott, and Youcheu Ngo-Kateu. A quadratic edge-finding filtering algorithm for cumulative resource constraints. In Jimmy Ho-Man Lee, editor, *Principles and Practice of Constraint Programming - CP 2011 - 17th International Conference, CP 2011, Perugia, Italy, September 12-16, 2011. Proceedings*, volume 6876 of *Lecture Notes in Computer Science*, pages 478–492. Springer, 2011. doi:10.1007/978-3-642-23786-7\\_37.
- [275] Roger Kameugne, Laure Pauline Fotso, Joseph D. Scott, and Youcheu Ngo-Kateu. A quadratic edge-finding filtering algorithm for cumulative resource constraints. *Constraints An Int. J.*, 19(3):243–269, 2014. URL: <https://doi.org/10.1007/s10601-013-9157-z>, doi:10.1007/S10601-013-9157-Z.
- [276] John J. Kanet, Sanjay Ahire, and Michael F. Gorman. Constraint programming for scheduling. In Joseph Y.-T. Leung, editor, *Handbook of Scheduling - Algorithms, Models, and Performance Analysis*. Chapman and Hall/CRC, 2004. URL: <http://www.crcnetbase.com/doi/abs/10.1201/9780203489802.ch47>, doi:10.1201/9780203489802.CH47.
- [277] Elena Kelareva, Kevin Tierney, and Philip Kilby. CP methods for scheduling and routing with time-dependent task costs. In Carla P. Gomes and Meinolf Sellmann, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 10th International Conference, CPAIOR 2013, Yorktown Heights, NY, USA, May 18-22, 2013. Proceedings*, volume 7874 of *Lecture Notes in Computer Science*, pages 111–127. Springer, 2013. doi:10.1007/978-3-642-38171-3\\_8.
- [278] Jan Kelbel and Zdenek Hanzálek. Solving production scheduling with earliness/tardiness penalties by constraint programming. *J. Intell. Manuf.*, 22(4):553–562, 2011. URL: <https://doi.org/10.1007/s10845-009-0318-2>, doi:10.1007/S10845-009-0318-2.
- [279] András Kéri and Tamás Kis. Computing tight time windows for RCPSPWET with the primal-dual method. In Pascal Van Hentenryck and Laurence A. Wolsey, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 4th International Conference, CPAIOR 2007, Brussels, Belgium, May 23-26, 2007, Proceedings*, volume 4510 of *Lecture Notes in Computer Science*, pages 127–140. Springer, 2007. doi:10.1007/978-3-540-72397-4\\_10.

- [280] Ghada El Khayat, André Langevin, and Diane Riopel. Integrated production and material handling scheduling using mathematical programming and constraint programming. *Eur. J. Oper. Res.*, 175(3):1818–1832, 2006. URL: <https://doi.org/10.1016/j.ejor.2005.02.077>, doi:10.1016/J.EJOR.2005.02.077.
- [281] Mohand Ou Idir Khemmoudj, Marc Porcheron, and Hachemi Bennaceur. When constraint programming and local search solve the scheduling problem of electricité de france nuclear power plant outages. In Frédéric Benhamou, editor, *Principles and Practice of Constraint Programming - CP 2006, 12th International Conference, CP 2006, Nantes, France, September 25-29, 2006, Proceedings*, volume 4204 of *Lecture Notes in Computer Science*, pages 271–283. Springer, 2006. doi:10.1007/11889205\\_21.
- [282] Dongyun Kim, Yeonjun Choi, Kyungduk Moon, Myungho Lee, Kangbok Lee, and Michael L. Pinedo. Iterated greedy constraint programming for scheduling steel-making continuous casting. In André A. Ciré, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 20th International Conference, CPAIOR 2023, Nice, France, May 29 - June 1, 2023, Proceedings*, volume 13884 of *Lecture Notes in Computer Science*, pages 477–492. Springer, 2023. doi:10.1007/978-3-031-33271-5\\_31.
- [283] Christian Klanke, Dominik R. Bleidorn, Vassilios Yfantis, and Sebastian Engell. Combining constraint programming and temporal decomposition approaches - scheduling of an industrial formulation plant. In Peter J. Stuckey, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 18th International Conference, CPAIOR 2021, Vienna, Austria, July 5-8, 2021, Proceedings*, volume 12735 of *Lecture Notes in Computer Science*, pages 133–148. Springer, 2021. doi:10.1007/978-3-030-78230-6\\_9.
- [284] Lucas Kletzander and Nysret Musliu. A multi-stage simulated annealing algorithm for the torpedo scheduling problem. In Domenico Salvagnin and Michele Lombardi, editors, *Integration of AI and OR Techniques in Constraint Programming - 14th International Conference, CPAIOR 2017, Padua, Italy, June 5-8, 2017, Proceedings*, volume 10335 of *Lecture Notes in Computer Science*, pages 344–358. Springer, 2017. doi:10.1007/978-3-319-59776-8\\_28.
- [285] Jana Koehler, Josef Bürgler, Urs Fontana, Etienne Fux, Florian A. Herzog, Marc Pouly, Sophia Saller, Anastasia Salyaeva, Peter Scheiblechner, and Kai Waelti. Cable tree wiring - benchmarking solvers on a real-world scheduling problem with a variety of precedence constraints. *Constraints An Int. J.*, 26(1):56–106, 2021. URL: <https://doi.org/10.1007/s10601-021-09321-w>, doi:10.1007/S10601-021-09321-W.
- [286] Rainer Kolisch and Arno Sprecher. Psplib - a project scheduling problem library. *European Journal of Operational Research*, 96(1):205–216, January 1997. URL: [http://dx.doi.org/10.1016/s0377-2217\(96\)00170-1](http://dx.doi.org/10.1016/s0377-2217(96)00170-1), doi:10.1016/s0377-2217(96)00170-1.
- [287] Ouajdi Korbaa, Pascal Yim, and Jean-Claude Gentina. Solving transient scheduling problem for cyclic production using timed petri nets and constraint programming. In *5th European Control Conference, ECC 1999, Karlsruhe, Germany, August 31 - September 3, 1999*, pages 3938–3945. IEEE, 1999. doi:10.23919/ECC.1999.7099947.
- [288] Ouajdi Korbaa, Pascal Yim, and Jean-Claude Gentina. Solving transient scheduling problems with constraint programming. *Eur. J. Control*, 6(6):511–520, 2000. doi:10.1016/S0947-3580(00)71113-7.
- [289] Sebastian Kosch and J. Christopher Beck. A new MIP model for parallel-batch scheduling with non-identical job sizes. In Helmut Simonis, editor, *Integration of AI and OR Techniques in Constraint Programming - 11th International Conference, CPAIOR 2014, Cork, Ireland, May 19-23, 2014. Proceedings*, volume 8451 of *Lecture Notes in Computer Science*, pages 55–70. Springer, 2014. doi:10.1007/978-3-319-07046-9\\_5.
- [290] András Kovács and J. Christopher Beck. A global constraint for total weighted completion time. In Pascal Van Hentenryck and Laurence A. Wolsey, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 4th International Conference, CPAIOR 2007, Brussels, Belgium, May 23-26, 2007, Proceedings*, volume 4510 of *Lecture Notes in Computer Science*, pages 112–126. Springer, 2007. doi:10.1007/978-3-540-72397-4\\_9.

- [291] András Kovács and J. Christopher Beck. A global constraint for total weighted completion time for cumulative resources. *Eng. Appl. Artif. Intell.*, 21(5):691–697, 2008. URL: <https://doi.org/10.1016/j.engappai.2008.03.004>, doi:10.1016/J.ENGAPPAI.2008.03.004.
- [292] András Kovács and J. Christopher Beck. A global constraint for total weighted completion time for unary resources. *Constraints An Int. J.*, 16(1):100–123, 2011. URL: <https://doi.org/10.1007/s10601-009-9088-x>, doi:10.1007/S10601-009-9088-X.
- [293] András Kovács, Péter Egri, Tamás Kis, and József Váncza. Proterv-ii: An integrated production planning and scheduling system. In Peter van Beek, editor, *Principles and Practice of Constraint Programming - CP 2005, 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005, Proceedings*, volume 3709 of *Lecture Notes in Computer Science*, pages 880–880. Springer, 2005. doi:10.1007/11564751\\_118.
- [294] András Kovács and Tamás Kis. Constraint programming approach to a bilevel scheduling problem. *Constraints An Int. J.*, 16(3):317–340, 2011. URL: <https://doi.org/10.1007/s10601-010-9102-3>, doi:10.1007/S10601-010-9102-3.
- [295] András Kovács and József Váncza. Completable partial solutions in constraint programming and constraint-based scheduling. In Mark Wallace, editor, *Principles and Practice of Constraint Programming - CP 2004, 10th International Conference, CP 2004, Toronto, Canada, September 27 - October 1, 2004, Proceedings*, volume 3258 of *Lecture Notes in Computer Science*, pages 332–346. Springer, 2004. doi:10.1007/978-3-540-30201-8\\_26.
- [296] András Kovács and József Váncza. Progressive solutions: A simple but efficient dominance rule for practical RCPSP. In J. Christopher Beck and Barbara M. Smith, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, Third International Conference, CPAIOR 2006, Cork, Ireland, May 31 - June 2, 2006, Proceedings*, volume 3990 of *Lecture Notes in Computer Science*, pages 139–151. Springer, 2006. doi:10.1007/11757375\\_13.
- [297] Benjamin Kovács, Pierre Tassel, Wolfgang Kohlenbrein, Philipp Schrott-Kostwein, and Martin Gebser. Utilizing constraint optimization for industrial machine workload balancing. In Laurent D. Michel, editor, *27th International Conference on Principles and Practice of Constraint Programming, CP 2021, Montpellier, France (Virtual Conference), October 25-29, 2021*, volume 210 of *LIPICs*, pages 36:1–36:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2021. URL: <https://doi.org/10.4230/LIPICs.CP.2021.36>, doi:10.4230/LIPICS.CP.2021.36.
- [298] Stefan Kreter, Andreas Schutt, and Peter J. Stuckey. Modeling and solving project scheduling with calendars. In Gilles Pesant, editor, *Principles and Practice of Constraint Programming - 21st International Conference, CP 2015, Cork, Ireland, August 31 - September 4, 2015, Proceedings*, volume 9255 of *Lecture Notes in Computer Science*, pages 262–278. Springer, 2015. doi:10.1007/978-3-319-23219-5\\_19.
- [299] Stefan Kreter, Andreas Schutt, and Peter J. Stuckey. Using constraint programming for solving rcpsp/max-cal. *Constraints An Int. J.*, 22(3):432–462, 2017. URL: <https://doi.org/10.1007/s10601-016-9266-6>, doi:10.1007/S10601-016-9266-6.
- [300] Stefan Kreter, Andreas Schutt, Peter J. Stuckey, and Jürgen Zimmermann. Mixed-integer linear programming and constraint programming formulations for solving resource availability cost problems. *Eur. J. Oper. Res.*, 266(2):472–486, 2018. URL: <https://doi.org/10.1016/j.ejor.2017.10.014>, doi:10.1016/J.EJOR.2017.10.014.
- [301] Wen-Yang Ku and J. Christopher Beck. Mixed integer programming models for job shop scheduling: A computational analysis. *Comput. Oper. Res.*, 73:165–173, 2016. URL: <https://doi.org/10.1016/j.cor.2016.04.006>, doi:10.1016/J.COR.2016.04.006.
- [302] Krzysztof Kuchcinski and Christophe Wolinski. Global approach to assignment and scheduling of complex behaviors based on HCDG and constraint programming. *J. Syst. Archit.*, 49(12-15):489–503, 2003. doi:10.1016/S1383-7621(03)00075-4.

- [303] T. K. Satish Kumar. Incremental computation of resource-envelopes in producer-consumer models. In Francesca Rossi, editor, *Principles and Practice of Constraint Programming - CP 2003, 9th International Conference, CP 2003, Kinsale, Ireland, September 29 - October 3, 2003, Proceedings*, volume 2833 of *Lecture Notes in Computer Science*, pages 664–678. Springer, 2003. doi:10.1007/978-3-540-45193-8\_45.
- [304] Mustafa Küçük and Seyda Topaloglu Yildiz. A constraint programming approach for agile earth observation satellite scheduling problem. In *2019 9th International Conference on Recent Advances in Space Technologies (RAST)*, pages 613–617, 2019. URL: <https://api.semanticscholar.org/CorpusID:198146161>.
- [305] Philippe Laborie. Algorithms for propagating resource constraints in ai planning and scheduling: Existing approaches and new results. *Artificial Intelligence*, 143(2):151–188, February 2003. URL: [http://dx.doi.org/10.1016/s0004-3702\(02\)00362-4](http://dx.doi.org/10.1016/s0004-3702(02)00362-4), doi:10.1016/s0004-3702(02)00362-4.
- [306] Philippe Laborie. IBM ILOG CP optimizer for detailed scheduling illustrated on three problems. In Willem Jan van Hoeve and John N. Hooker, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 6th International Conference, CPAIOR 2009, Pittsburgh, PA, USA, May 27-31, 2009, Proceedings*, volume 5547 of *Lecture Notes in Computer Science*, pages 148–162. Springer, 2009. doi:10.1007/978-3-642-01929-6\_12.
- [307] Philippe Laborie. An update on the comparison of mip, CP and hybrid approaches for mixed resource allocation and scheduling. In Willem Jan van Hoeve, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, volume 10848 of *Lecture Notes in Computer Science*, pages 403–411. Springer, 2018. doi:10.1007/978-3-319-93031-2\_29.
- [308] Philippe Laborie, Jerome Rogerie, Paul Shaw, and Petr Vilím. IBM ILOG CP optimizer for scheduling - 20+ years of scheduling with constraints at IBM/ILOG. *Constraints An Int. J.*, 23(2):210–250, 2018. URL: <https://doi.org/10.1007/s10601-018-9281-x>, doi:10.1007/s10601-018-9281-x.
- [309] Marie-Louise Lackner, Christoph Mrkvicka, Nysret Musliu, Daniel Walkiewicz, and Felix Winter. Minimizing cumulative batch processing time for an industrial oven scheduling problem. In Laurent D. Michel, editor, *27th International Conference on Principles and Practice of Constraint Programming, CP 2021, Montpellier, France (Virtual Conference), October 25-29, 2021*, volume 210 of *LIPICs*, pages 37:1–37:18. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2021. URL: <https://doi.org/10.4230/LIPICs.CP.2021.37>, doi:10.4230/LIPICs.CP.2021.37.
- [310] Marie-Louise Lackner, Christoph Mrkvicka, Nysret Musliu, Daniel Walkiewicz, and Felix Winter. Exact methods for the oven scheduling problem. *Constraints An Int. J.*, 28(2):320–361, 2023. URL: <https://doi.org/10.1007/s10601-023-09347-2>, doi:10.1007/s10601-023-09347-2.
- [311] Asma Lahimer, Pierre Lopez, and Mohamed Haouari. Climbing depth-bounded adjacent discrepancy search for solving hybrid flow shop scheduling problems with multiprocessor tasks. In Tobias Achterberg and J. Christopher Beck, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 8th International Conference, CPAIOR 2011, Berlin, Germany, May 23-27, 2011. Proceedings*, volume 6697 of *Lecture Notes in Computer Science*, pages 117–130. Springer, 2011. doi:10.1007/978-3-642-21311-3\_12.
- [312] Evelina Lamma, Paola Mello, and Michela Milano. A distributed constraint-based scheduler. *Artif. Intell. Eng.*, 11(2):91–105, 1997. doi:10.1016/S0954-1810(96)00002-7.
- [313] Hoong Chuin Lau, Kong Wei Lye, and Viet Bang Nguyen. A combinatorial auction framework for solving decentralized scheduling problems (extended abstract). In Laurent Perron and Michael A. Trick, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 5th International Conference, CPAIOR 2008, Paris, France, May 20-23, 2008, Proceedings*, volume 5015 of *Lecture Notes in Computer Science*, pages 333–337. Springer, 2008. doi:10.1007/978-3-540-68155-7\_33.
- [314] Colin J. Layfield. *A constraint programming pre-processor for duty scheduling*. PhD thesis, University of Leeds, UK, 2002. URL: <http://etheses.whiterose.ac.uk/1301/>.

- [315] Alexandre Duarte de Almeida Lemos. *Solving scheduling problems under disruptions*. PhD thesis, UNIVERSIDADE DE LISBOA INSTITUTO SUPERIOR TÉCNICO, July 2021. URL: [https://scholar.tecnico.ulisboa.pt/records/u5RPHM-pu\\_yo0LXJF7BHrgJx47D827b0xHb3](https://scholar.tecnico.ulisboa.pt/records/u5RPHM-pu_yo0LXJF7BHrgJx47D827b0xHb3).
- [316] Arnaud Letort, Nicolas Beldiceanu, and Mats Carlsson. A scalable sweep algorithm for the cumulative constraint. In Michela Milano, editor, *Principles and Practice of Constraint Programming - 18th International Conference, CP 2012, Québec City, QC, Canada, October 8-12, 2012. Proceedings*, volume 7514 of *Lecture Notes in Computer Science*, pages 439–454. Springer, 2012. doi:10.1007/978-3-642-33558-7\\_33.
- [317] Arnaud Letort, Mats Carlsson, and Nicolas Beldiceanu. A synchronized sweep algorithm for the  $k$ -dimensional cumulative constraint. In Carla P. Gomes and Meinolf Sellmann, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 10th International Conference, CPAIOR 2013, Yorktown Heights, NY, USA, May 18-22, 2013. Proceedings*, volume 7874 of *Lecture Notes in Computer Science*, pages 144–159. Springer, 2013. doi:10.1007/978-3-642-38171-3\\_10.
- [318] Arnaud Letort, Mats Carlsson, and Nicolas Beldiceanu. Synchronized sweep algorithms for scalable scheduling constraints. *Constraints An Int. J.*, 20(2):183–234, 2015. URL: <https://doi.org/10.1007/s10601-014-9172-8>, doi:10.1007/S10601-014-9172-8.
- [319] Xingyang Li, Jun Fu, Zixi Jia, Ziyang Zhao, Siyi Li, and Shixin Liu. Constraint programming for a novel integrated optimization of blocking job shop scheduling and variable-speed transfer robot assignment. In *IEEE International Conference on Networking, Sensing and Control, ICNSC 2022, Shanghai, China, December 15-18, 2022*, pages 1–6. IEEE, 2022. doi:10.1109/ICNSC55942.2022.10004158.
- [320] Olivier Liess and Philippe Michelon. A constraint programming approach for the resource-constrained project scheduling problem. *Ann. Oper. Res.*, 157(1):25–36, 2008. URL: <https://doi.org/10.1007/s10479-007-0188-y>, doi:10.1007/S10479-007-0188-Y.
- [321] Andrew Lim, Brian Rodrigues, and Zhou Xu. Solving the crane scheduling problem using intelligent search schemes. In Mark Wallace, editor, *Principles and Practice of Constraint Programming - CP 2004, 10th International Conference, CP 2004, Toronto, Canada, September 27 - October 1, 2004, Proceedings*, volume 3258 of *Lecture Notes in Computer Science*, pages 747–751. Springer, 2004. doi:10.1007/978-3-540-30201-8\\_59.
- [322] BoonPing Lim, Hassan L. Hijazi, Sylvie Thiébaux, and Menkes van den Briel. Online hvac-aware occupancy scheduling with adaptive temperature control. In Michel Rueher, editor, *Principles and Practice of Constraint Programming - 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016, Proceedings*, volume 9892 of *Lecture Notes in Computer Science*, pages 683–700. Springer, 2016. doi:10.1007/978-3-319-44953-1\\_43.
- [323] BoonPing Lim, Menkes van den Briel, Sylvie Thiébaux, Russell Bent, and Scott Backhaus. Large neighborhood search for energy aware meeting scheduling in smart buildings. In Laurent Michel, editor, *Integration of AI and OR Techniques in Constraint Programming - 12th International Conference, CPAIOR 2015, Barcelona, Spain, May 18-22, 2015, Proceedings*, volume 9075 of *Lecture Notes in Computer Science*, pages 240–254. Springer, 2015. doi:10.1007/978-3-319-18008-3\\_17.
- [324] Kamol Limtanyakul. Scheduling of tests on vehicle prototypes using constraint and integer programming. In Jörg Kalcsics and Stefan Nickel, editors, *Operations Research, Proceedings 2007, Selected Papers of the Annual International Conference of the German Operations Research Society (GOR), Saarbrücken, Germany, September 5-7, 2007*, Operations Research Proceedings, pages 421–426. Springer, 2007. doi:10.1007/978-3-540-77903-2\\_65.
- [325] Kamol Limtanyakul and Uwe Schwiegelshohn. Improvements of constraint programming and hybrid methods for scheduling of tests on vehicle prototypes. *Constraints An Int. J.*, 17(2):172–203, 2012. URL: <https://doi.org/10.1007/s10601-012-9118-y>, doi:10.1007/S10601-012-9118-Y.
- [326] Nir Lipovetzky, Christina N. Burt, Adrian R. Pearce, and Peter J. Stuckey. Planning for mining operations with time and resource constraints. In Steve A. Chien, Minh Binh Do, Alan Fern, and Wheeler Ruml, editors, *Proceedings of the Twenty-Fourth International Conference on Automated Planning and Scheduling, ICAPS 2014, Portsmouth, New Hampshire, USA, June 21-26, 2014*. AAAI, 2014. URL: <http://www.aaai.org/ocs/index.php/ICAPS/ICAPS14/paper/view/7942>.

- [327] Ke Liu, Sven Löffler, and Petra Hofstedt. Solving the talent scheduling problem by parallel constraint programming. In John MacIntyre, Ilias Maglogiannis, Lazaros S. Iliadis, and Elias Pimenidis, editors, *Artificial Intelligence Applications and Innovations - 15th IFIP WG 12.5 International Conference, AIAI 2019, Hersonissos, Crete, Greece, May 24-26, 2019, Proceedings*, volume 559 of *IFIP Advances in Information and Communication Technology*, pages 236–244. Springer, 2019. doi:10.1007/978-3-030-19823-7\\_19.
- [328] Tong Liu, Roberto Di Cosmo, Maurizio Gabbrielli, and Jacopo Mauro. Nightsplitter: A scheduling tool to optimize (sub)group activities. In J. Christopher Beck, editor, *Principles and Practice of Constraint Programming - 23rd International Conference, CP 2017, Melbourne, VIC, Australia, August 28 - September 1, 2017, Proceedings*, volume 10416 of *Lecture Notes in Computer Science*, pages 370–386. Springer, 2017. doi:10.1007/978-3-319-66158-2\\_24.
- [329] Yuechang Liu and Yunfei Jiang. LP-TPOP: integrating planning and scheduling through constraint programming. In Qiang Yang and Geoffrey I. Webb, editors, *PRICAI 2006: Trends in Artificial Intelligence, 9th Pacific Rim International Conference on Artificial Intelligence, Guilin, China, August 7-11, 2006, Proceedings*, volume 4099 of *Lecture Notes in Computer Science*, pages 844–848. Springer, 2006. doi:10.1007/11801603\\_92.
- [330] Michele Lombardi. *Hybrid Methods for Resource Allocation and Scheduling Problems in Deterministic and Stochastic Environments*. PhD thesis, University of Bologna, Italy, 2010. URL: <http://amsdottorato.unibo.it/2961/>.
- [331] Michele Lombardi, Alessio Bonfietti, and Michela Milano. Deterministic estimation of the expected makespan of a POS under duration uncertainty. In Gilles Pesant, editor, *Principles and Practice of Constraint Programming - 21st International Conference, CP 2015, Cork, Ireland, August 31 - September 4, 2015, Proceedings*, volume 9255 of *Lecture Notes in Computer Science*, pages 279–294. Springer, 2015. doi:10.1007/978-3-319-23219-5\\_20.
- [332] Michele Lombardi, Alessio Bonfietti, Michela Milano, and Luca Benini. Precedence constraint posting for cyclic scheduling problems. In Tobias Achterberg and J. Christopher Beck, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 8th International Conference, CPAIOR 2011, Berlin, Germany, May 23-27, 2011. Proceedings*, volume 6697 of *Lecture Notes in Computer Science*, pages 137–153. Springer, 2011. doi:10.1007/978-3-642-21311-3\\_14.
- [333] Michele Lombardi and Michela Milano. A precedence constraint posting approach for the RCPSP with time lags and variable durations. In Ian P. Gent, editor, *Principles and Practice of Constraint Programming - CP 2009, 15th International Conference, CP 2009, Lisbon, Portugal, September 20-24, 2009, Proceedings*, volume 5732 of *Lecture Notes in Computer Science*, pages 569–583. Springer, 2009. doi:10.1007/978-3-642-04244-7\\_45.
- [334] Michele Lombardi and Michela Milano. Allocation and scheduling of conditional task graphs. *Artif. Intell.*, 174(7-8):500–529, 2010. URL: <https://doi.org/10.1016/j.artint.2010.02.004>, doi:10.1016/J.ARTINT.2010.02.004.
- [335] Michele Lombardi and Michela Milano. Constraint based scheduling to deal with uncertain durations and self-timed execution. In David Cohen, editor, *Principles and Practice of Constraint Programming - CP 2010 - 16th International Conference, CP 2010, St. Andrews, Scotland, UK, September 6-10, 2010. Proceedings*, volume 6308 of *Lecture Notes in Computer Science*, pages 383–397. Springer, 2010. doi:10.1007/978-3-642-15396-9\\_32.
- [336] Michele Lombardi and Michela Milano. A min-flow algorithm for minimal critical set detection in resource constrained project scheduling. *Artif. Intell.*, 182-183:58–67, 2012. URL: <https://doi.org/10.1016/j.artint.2011.12.001>, doi:10.1016/J.ARTINT.2011.12.001.
- [337] Michele Lombardi and Michela Milano. Optimal methods for resource allocation and scheduling: a cross-disciplinary survey. *Constraints An Int. J.*, 17(1):51–85, 2012. URL: <https://doi.org/10.1007/s10601-011-9115-6>, doi:10.1007/S10601-011-9115-6.
- [338] Michele Lombardi and Michela Milano. A min-flow algorithm for minimal critical set detection in resource constrained project scheduling. In Daniel Borrajo, Subbarao Kambhampati, Angelo Oddi, and Simone Fratini, editors, *Proceedings of the Twenty-Third International Conference on Automated Planning and Scheduling, ICAPS 2013, Rome, Italy, June 10-14, 2013*. AAAI, 2013. URL: <http://www.aaai.org/ocs/index.php/ICAPS/ICAPS13/paper/view/6052>.

- [339] Tony Minoru Tamura Lopes, André A. Ciré, Cid Carvalho de Souza, and Arnaldo Vieira Moura. A hybrid model for a multiproduct pipeline planning and scheduling problem. *Constraints An Int. J.*, 15(2):151–189, 2010. URL: <https://doi.org/10.1007/s10601-009-9086-z>, doi:10.1007/S10601-009-9086-Z.
- [340] Pierre Lopez, Hassane Alla, Ouajdi Korbaa, Pascal Yim, and Jean-Claude Gentina. Discussion on: 'solving transient scheduling problems with constraint programming' by o. korbaa, p. yim, and J.-C. gentina. *Eur. J. Control*, 6(6):521–524, 2000. doi:10.1016/S0947-3580(00)71114-9.
- [341] Thomas Lorigeon, Jean-Charles Billaut, and Jean-Louis Bouquard. A dynamic programming algorithm for scheduling jobs in a two-machine open shop with an availability constraint. *J. Oper. Res. Soc.*, 53(11):1239–1246, 2002. URL: <https://doi.org/10.1057/palgrave.jors.2601421>, doi:10.1057/PALGRAVE.JORS.2601421.
- [342] Wing-Yue Geoffrey Louie, Tiago Stegun Vaquero, Goldie Nejat, and J. Christopher Beck. An autonomous assistive robot for planning, scheduling and facilitating multi-user activities. In *2014 IEEE International Conference on Robotics and Automation, ICRA 2014, Hong Kong, China, May 31 - June 7, 2014*, pages 5292–5298. IEEE, 2014. doi:10.1109/ICRA.2014.6907637.
- [343] Willian T. Lunardi, Ernesto G. Birgin, Philippe Laborie, Débora P. Ronconi, and Holger Voos. Mixed integer linear programming and constraint programming models for the online printing shop scheduling problem. *Comput. Oper. Res.*, 123:105020, 2020. URL: <https://doi.org/10.1016/j.cor.2020.105020>, doi:10.1016/J.COR.2020.105020.
- [344] Willian Tessaro Lunardi. *A Real-World Flexible Job Shop Scheduling Problem With Sequencing Flexibility: Mathematical Programming, Constraint Programming, and Metaheuristics*. PhD thesis, University of Luxembourg, Luxembourg City, Luxembourg, 2020. URL: <http://orbilu.uni.lu/handle/10993/43893>.
- [345] Roy Luo, Richard Anthony Valenzano, Yi Li, J. Christopher Beck, and Sheila A. McIlraith. Using metric temporal logic to specify scheduling problems. In Chitta Baral, James P. Delgrande, and Frank Wolter, editors, *Principles of Knowledge Representation and Reasoning: Proceedings of the Fifteenth International Conference, KR 2016, Cape Town, South Africa, April 25-29, 2016*, pages 581–584. AAAI Press, 2016. URL: <http://www.aaai.org/ocs/index.php/KR/KR16/paper/view/12909>.
- [346] Yiqing L. Luo and J. Christopher Beck. Packing by scheduling: Using constraint programming to solve a complex 2d cutting stock problem. In Pierre Schaus, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 19th International Conference, CPAIOR 2022, Los Angeles, CA, USA, June 20-23, 2022, Proceedings*, volume 13292 of *Lecture Notes in Computer Science*, pages 249–265. Springer, 2022. doi:10.1007/978-3-031-08011-1\_17.
- [347] Gilles Madi-Wamba and Nicolas Beldiceanu. The taskintersection constraint. In Claude-Guy Quimper, editor, *Integration of AI and OR Techniques in Constraint Programming - 13th International Conference, CPAIOR 2016, Banff, AB, Canada, May 29 - June 1, 2016, Proceedings*, volume 9676 of *Lecture Notes in Computer Science*, pages 246–261. Springer, 2016. doi:10.1007/978-3-319-33954-2\_18.
- [348] Gilles Madi-Wamba, Yunbo Li, Anne-Cécile Orgerie, Nicolas Beldiceanu, and Jean-Marc Menaud. Green energy aware scheduling problem in virtualized datacenters. In *23rd IEEE International Conference on Parallel and Distributed Systems, ICPADS 2017, Shenzhen, China, December 15-17, 2017*, pages 648–655. IEEE Computer Society, 2017. doi:10.1109/ICPADS.2017.00089.
- [349] Kai-Ling Mak, Jun Ma, and Wei Su. A constraint programming approach for production scheduling of multi-period virtual cellular manufacturing systems. In *Sixth International Conference on Natural Computation, ICNC 2010, Yantai, Shandong, China, 10-12 August 2010*, pages 4440–4444. IEEE, 2010. doi:10.1109/ICNC.2010.5583494.
- [350] Arnaud Malapert. *Techniques d’ordonnancement d’atelier et de journées basées sur la programmation par contraintes. (Shop and batch scheduling with constraints)*. PhD thesis, École des mines de Nantes, France, 2011. URL: <https://tel.archives-ouvertes.fr/tel-00630122>.

- [351] Arnaud Malapert and Margaux Nattaf. A new cp-approach for a parallel machine scheduling problem with time constraints on machine qualifications. In Louis-Martin Rousseau and Kostas Stergiou, editors, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 16th International Conference, CPAIOR 2019, Thessaloniki, Greece, June 4-7, 2019, Proceedings*, volume 11494 of *Lecture Notes in Computer Science*, pages 426–442. Springer, 2019. doi:10.1007/978-3-030-19212-9\_28.
- [352] Abid M. Malik. *Constraint Programming Techniques for Optimal Instruction Scheduling*. PhD thesis, University of Waterloo, Ontario, Canada, 2008. URL: <https://hdl.handle.net/10012/3612>.
- [353] Abid M. Malik, Jim McInnes, and Peter van Beek. Optimal basic block instruction scheduling for multiple-issue processors using constraint programming. *Int. J. Artif. Intell. Tools*, 17(1):37–54, 2008. doi:10.1142/S0218213008003765.
- [354] Christos T. Maravelias and Ignacio E. Grossmann. Using MILP and CP for the scheduling of batch chemical processes. In Jean-Charles Régin and Michel Rueher, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, First International Conference, CPAIOR 2004, Nice, France, April 20-22, 2004, Proceedings*, volume 3011 of *Lecture Notes in Computer Science*, pages 1–20. Springer, 2004. doi:10.1007/978-3-540-24664-0\_1.
- [355] Fae Martin, Arthur Pinkney, and Xinghuo Yu. Cane railway scheduling via constraint logic programming: Labelling order and constraints in a real-life application. *Ann. Oper. Res.*, 108(1-4):193–209, 2001. doi:10.1023/A:1016067230126.
- [356] Andrew J. Mason. Elastic constraint branching, the wedelin/carmen lagrangian heuristic and integer programming for personnel scheduling. *Ann. Oper. Res.*, 108(1-4):239–276, 2001. doi:10.1023/A:1016023415105.
- [357] Zahra Mehdizadeh-Somarin, Reza Tavakkoli-Moghaddam, Mohammad Rohaninejad, Zdenek Hanzálek, and Behdin Vahedi Nouri. A constraint programming model for a reconfigurable job shop scheduling problem with machine availability. In Erlend Alfnæs, Anita Romsdal, Jan Ola Strandhagen, Gregor von Cieminski, and David Romero, editors, *Advances in Production Management Systems. Production Management Systems for Responsible Manufacturing, Service, and Logistics Futures - IFIP WG 5.7 International Conference, APMS 2023, Trondheim, Norway, September 17-21, 2023, Proceedings, Part III*, volume 691 of *IFIP Advances in Information and Communication Technology*, pages 477–490. Springer, 2023. doi:10.1007/978-3-031-43670-3\_33.
- [358] Gonzalo Mejía and Francisco Yuraszeck. A self-tuning variable neighborhood search algorithm and an effective decoding scheme for open shop scheduling problems with travel/setup times. *Eur. J. Oper. Res.*, 285(2):484–496, 2020. URL: <https://doi.org/10.1016/j.ejor.2020.02.010>, doi:10.1016/J.EJOR.2020.02.010.
- [359] Julien Menana. *Automates et programmation par contraintes pour la planification de personnel. (Automata and Constraint Programming for Personnel Scheduling Problems)*. PhD thesis, University of Nantes, France, 2011. URL: <https://tel.archives-ouvertes.fr/tel-00785838>.
- [360] Leilei Meng, Chaoyong Zhang, Yaping Ren, Biao Zhang, and Chang Lv. Mixed-integer linear programming and constraint programming formulations for solving distributed flexible job shop scheduling problem. *Comput. Ind. Eng.*, 142:106347, 2020. URL: <https://doi.org/10.1016/j.cie.2020.106347>, doi:10.1016/J.CIE.2020.106347.
- [361] Luc Mercier and Pascal Van Hentenryck. Edge finding for cumulative scheduling. *INFORMS Journal on Computing*, 20(1):143–153, February 2008. URL: <http://dx.doi.org/10.1287/ijoc.1070.0226>, doi:10.1287/ijoc.1070.0226.
- [362] Alexandre Mercier-Aubin, Jonathan Gaudreault, and Claude-Guy Quimper. Leveraging constraint scheduling: A case study to the textile industry. In Emmanuel Hebrard and Nysret Musliu, editors, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 17th International Conference, CPAIOR 2020, Vienna, Austria, September 21-24, 2020, Proceedings*, volume 12296 of *Lecture Notes in Computer Science*, pages 334–346. Springer, 2020. doi:10.1007/978-3-030-58942-4\_22.



- [363] Michael D. Moffitt, Bart Peintner, and Martha E. Pollack. Augmenting disjunctive temporal problems with finite-domain constraints. In Manuela M. Veloso and Subbarao Kambhampati, editors, *Proceedings, The Twentieth National Conference on Artificial Intelligence and the Seventeenth Innovative Applications of Artificial Intelligence Conference, July 9-13, 2005, Pittsburgh, Pennsylvania, USA*, pages 1187–1192. AAAI Press / The MIT Press, 2005. URL: <http://www.aaai.org/Library/AAAI/2005/aaai05-188.php>.
- [364] Mahdi Mokhtarzadeh, Reza Tavakkoli-Moghaddam, Behdin Vahedi Nouri, and Azadeh Farsi. Scheduling of human-robot collaboration in assembly of printed circuit boards: a constraint programming approach. *Int. J. Comput. Integr. Manuf.*, 33(5):460–473, 2020. doi:10.1080/0951192X.2020.1736713.
- [365] Jean-Noël Monette, Yves Deville, and Pierre Dupont. A position-based propagator for the open-shop problem. In Pascal Van Hentenryck and Laurence A. Wolsey, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 4th International Conference, CPAIOR 2007, Brussels, Belgium, May 23-26, 2007, Proceedings*, volume 4510 of *Lecture Notes in Computer Science*, pages 186–199. Springer, 2007. doi:10.1007/978-3-540-72397-4\_14.
- [366] Jean-Noël Monette, Yves Deville, and Pascal Van Hentenryck. Just-in-time scheduling with constraint programming. In Alfonso Gerevini, Adele E. Howe, Amedeo Cesta, and Ioannis Refanidis, editors, *Proceedings of the 19th International Conference on Automated Planning and Scheduling, ICAPS 2009, Thessaloniki, Greece, September 19-23, 2009*. AAAI, 2009. URL: <http://aaai.org/ocs/index.php/ICAPS/ICAPS09/paper/view/712>.
- [367] Roberto Montemanni and Mauro Dell’Amico. Constraint programming models for the parallel drone scheduling vehicle routing problem. *EURO J. Comput. Optim.*, 11:100078, 2023. URL: <https://doi.org/10.1016/j.ejco.2023.100078>, doi:10.1016/J.EJCO.2023.100078.
- [368] Roberto Montemanni and Mauro Dell’Amico. Solving the parallel drone scheduling traveling salesman problem via constraint programming. *Algorithms*, 16(1):40, 2023. URL: <https://doi.org/10.3390/a16010040>, doi:10.3390/A16010040.
- [369] Morten Mossige, Arnaud Gotlieb, Helge Spieker, Hein Meling, and Mats Carlsson. Time-aware test case execution scheduling for cyber-physical systems. In J. Christopher Beck, editor, *Principles and Practice of Constraint Programming - 23rd International Conference, CP 2017, Melbourne, VIC, Australia, August 28 - September 1, 2017, Proceedings*, volume 10416 of *Lecture Notes in Computer Science*, pages 387–404. Springer, 2017. doi:10.1007/978-3-319-66158-2\_25.
- [370] Arnaldo Vieira Moura, Cid C. de Souza, André A. Ciré, and Tony Minoru Tamura Lopes. Heuristics and constraint programming hybridizations for a real pipeline planning and scheduling problem. In *Proceedings of the 11th IEEE International Conference on Computational Science and Engineering, CSE 2008, São Paulo, SP, Brazil, July 16-18, 2008*, pages 455–462. IEEE Computer Society, 2008. doi:10.1109/CSE.2008.24.
- [371] Arnaldo Vieira Moura, Cid C. de Souza, André A. Ciré, and Tony Minoru Tamura Lopes. Planning and scheduling the operation of a very large oil pipeline network. In Peter J. Stuckey, editor, *Principles and Practice of Constraint Programming, 14th International Conference, CP 2008, Sydney, Australia, September 14-18, 2008. Proceedings*, volume 5202 of *Lecture Notes in Computer Science*, pages 36–51. Springer, 2008. doi:10.1007/978-3-540-85958-1\_3.
- [372] David Müller, Marcus Gerhard Müller, Dominik Kress, and Erwin Pesch. An algorithm selection approach for the flexible job shop scheduling problem: Choosing constraint programming solvers through machine learning. *Eur. J. Oper. Res.*, 302(3):874–891, 2022. URL: <https://doi.org/10.1016/j.ejor.2022.01.034>, doi:10.1016/J.EJOR.2022.01.034.
- [373] Stanislav Murín and Hana Rudová. Scheduling of mobile robots using constraint programming. In Thomas Schiex and Simon de Givry, editors, *Principles and Practice of Constraint Programming - 25th International Conference, CP 2019, Stamford, CT, USA, September 30 - October 4, 2019, Proceedings*, volume 11802 of *Lecture Notes in Computer Science*, pages 456–471. Springer, 2019. doi:10.1007/978-3-030-30048-7\_27.

- [374] Seán Óg Murphy, Oscar Manzano, and Kenneth N. Brown. Design and evaluation of a constraint-based energy saving and scheduling recommender system. In Gilles Pesant, editor, *Principles and Practice of Constraint Programming - 21st International Conference, CP 2015, Cork, Ireland, August 31 - September 4, 2015, Proceedings*, volume 9255 of *Lecture Notes in Computer Science*, pages 687–703. Springer, 2015. doi:10.1007/978-3-319-23219-5\_47.
- [375] Nicola Muscettola. Computing the envelope for stepwise-constant resource allocations. In Pascal Van Hentenryck, editor, *Principles and Practice of Constraint Programming - CP 2002, 8th International Conference, CP 2002, Ithaca, NY, USA, September 9-13, 2002, Proceedings*, volume 2470 of *Lecture Notes in Computer Science*, pages 139–154. Springer, 2002. doi:10.1007/3-540-46135-3\_10.
- [376] Nysret Musliu, Andreas Schutt, and Peter J. Stuckey. Solver independent rotating workforce scheduling. In Willem Jan van Hoeve, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, volume 10848 of *Lecture Notes in Computer Science*, pages 429–445. Springer, 2018. doi:10.1007/978-3-319-93031-2\_31.
- [377] Bahman Naderi, Mehmet A. Begen, and Guoqing Zhang. Integrated order acceptance and resource decisions under uncertainty: Robust and stochastic approaches. *SSRN Electronic Journal*, 2022. URL: <http://dx.doi.org/10.2139/ssrn.4140716>, doi:10.2139/ssrn.4140716.
- [378] Bahman Naderi, Rubén Ruiz, and Vahid Roshanaei. Mixed-integer programming vs. constraint programming for shop scheduling problems: New results and outlook. *INFORMS Journal on Computing*, 35(4):817–843, 2023. arXiv:<https://doi.org/10.1287/ijoc.2023.1287>, doi:10.1287/ijoc.2023.1287.
- [379] Margaux Nattaf, Christian Artigues, and Pierre Lopez. A hybrid exact method for a scheduling problem with a continuous resource and energy constraints. *Constraints An Int. J.*, 20(3):304–324, 2015. URL: <https://doi.org/10.1007/s10601-015-9192-z>, doi:10.1007/s10601-015-9192-z.
- [380] Margaux Nattaf, Christian Artigues, and Pierre Lopez. Cumulative scheduling with variable task profiles and concave piecewise linear processing rate functions. *Constraints An Int. J.*, 22(4):530–547, 2017. URL: <https://doi.org/10.1007/s10601-017-9271-4>, doi:10.1007/s10601-017-9271-4.
- [381] Margaux Nattaf and Arnaud Malapert. Filtering rules for flow time minimization in a parallel machine scheduling problem. In Helmut Simonis, editor, *Principles and Practice of Constraint Programming - 26th International Conference, CP 2020, Louvain-la-Neuve, Belgium, September 7-11, 2020, Proceedings*, volume 12333 of *Lecture Notes in Computer Science*, pages 462–477. Springer, 2020. doi:10.1007/978-3-030-58475-7\_27.
- [382] Nicholas Nethercote, Peter J. Stuckey, Ralph Becket, Sebastian Brand, Gregory J. Duck, and Guido Tack. Minizinc: Towards a standard CP modelling language. In Christian Bessiere, editor, *Principles and Practice of Constraint Programming - CP 2007, 13th International Conference, CP 2007, Providence, RI, USA, September 23-27, 2007, Proceedings*, volume 4741 of *Lecture Notes in Computer Science*, pages 529–543. Springer, 2007. doi:10.1007/978-3-540-74970-7\_38.
- [383] Su Nguyen, Dhananjay R. Thiruvady, Yuan Sun, and Mengjie Zhang. Genetic-based constraint programming for resource constrained job scheduling. *CoRR*, abs/2402.00459, 2024. URL: <https://doi.org/10.48550/arXiv.2402.00459>, arXiv:2402.00459, doi:10.48550/ARXIV.2402.00459.
- [384] Hiroki Nishikawa, Kana Shimada, Ittetsu Taniguchi, and Hiroyuki Tomiyama. Scheduling of malleable fork-join tasks with constraint programming. In *Sixth International Symposium on Computing and Networking, CANDAR 2018, Takayama, Japan, November 23-27, 2018*, pages 133–138. IEEE Computer Society, 2018. doi:10.1109/CANDAR.2018.00025.
- [385] Hiroki Nishikawa, Kana Shimada, Ittetsu Taniguchi, and Hiroyuki Tomiyama. Scheduling of malleable tasks based on constraint programming. In *TENCON 2018 - 2018 IEEE Region 10 Conference, Jeju, South Korea, October 28-31, 2018*, pages 1493–1498. IEEE, 2018. doi:10.1109/TENCON.2018.8650168.
- [386] Hiroki Nishikawa, Kana Shimada, Ittetsu Taniguchi, and Hiroyuki Tomiyama. A constraint programming approach to scheduling of malleable tasks. *Int. J. Netw. Comput.*, 9(2):131–146, 2019. URL: <http://www.ijnc.org/index.php/ijnc/article/view/201>.

- [387] Franco M. Novara, Juan M. Novas, and Gabriela P. Henning. A novel constraint programming model for large-scale scheduling problems in multiproduct multistage batch plants: Limited resources and campaign-based operation. *Comput. Chem. Eng.*, 93:101–117, 2016. URL: <https://doi.org/10.1016/j.compchemeng.2016.04.030>, doi:10.1016/J.COMPCHENG.2016.04.030.
- [388] Juan M. Novas. Production scheduling and lot streaming at flexible job-shops environments using constraint programming. *Comput. Ind. Eng.*, 136:252–264, 2019. URL: <https://doi.org/10.1016/j.cie.2019.07.011>, doi:10.1016/J.CIE.2019.07.011.
- [389] Juan M. Novas and Gabriela P. Henning. Reactive scheduling framework based on domain knowledge and constraint programming. *Comput. Chem. Eng.*, 34(12):2129–2148, 2010. URL: <https://doi.org/10.1016/j.compchemeng.2010.07.011>, doi:10.1016/J.COMPCHENG.2010.07.011.
- [390] Juan M. Novas and Gabriela P. Henning. A comprehensive constraint programming approach for the rolling horizon-based scheduling of automated wet-etch stations. *Comput. Chem. Eng.*, 42:189–205, 2012. URL: <https://doi.org/10.1016/j.compchemeng.2012.01.005>, doi:10.1016/J.COMPCHENG.2012.01.005.
- [391] Juan M. Novas and Gabriela P. Henning. Integrated scheduling of resource-constrained flexible manufacturing systems using constraint programming. *Expert Syst. Appl.*, 41(5):2286–2299, 2014. URL: <https://doi.org/10.1016/j.eswa.2013.09.026>, doi:10.1016/J.ESWA.2013.09.026.
- [392] W. P. M. Nuijten and Emile H. L. Aarts. Constraint satisfaction for multiple capacitated job shop scheduling. In Anthony G. Cohn, editor, *Proceedings of the Eleventh European Conference on Artificial Intelligence, Amsterdam, The Netherlands, August 8-12, 1994*, pages 635–639. John Wiley and Sons, Chichester, 1994.
- [393] Wim Nuijten and Claude Le Pape. Constraint-based job shop scheduling with \sc ilog scheduler. *J. Heuristics*, 3(4):271–286, 1998. doi:10.1023/A:1009687210594.
- [394] Angelo Oddi, Nicola Policella, Amedeo Cesta, and Gabriella Cortellessa. Generating high quality schedules for a spacecraft memory downlink problem. In Francesca Rossi, editor, *Principles and Practice of Constraint Programming - CP 2003, 9th International Conference, CP 2003, Kinsale, Ireland, September 29 - October 3, 2003, Proceedings*, volume 2833 of *Lecture Notes in Computer Science*, pages 570–584. Springer, 2003. doi:10.1007/978-3-540-45193-8\\_39.
- [395] Olga Ohrimenko, Peter J. Stuckey, and Michael Codish. Propagation via lazy clause generation. *Constraints*, 14(3):357–391, January 2009. URL: <http://dx.doi.org/10.1007/s10601-008-9064-x>, doi:10.1007/s10601-008-9064-x.
- [396] Pierre Ouellet and Claude-Guy Quimper. Time-table extended-edge-finding for the cumulative constraint. In Christian Schulte, editor, *Principles and Practice of Constraint Programming - 19th International Conference, CP 2013, Uppsala, Sweden, September 16-20, 2013. Proceedings*, volume 8124 of *Lecture Notes in Computer Science*, pages 562–577. Springer, 2013. doi:10.1007/978-3-642-40627-0\\_42.
- [397] Yanick Ouellet and Claude-Guy Quimper. A  $o(n \log^2 n)$  checker and  $o(n^2 \log n)$  filtering algorithm for the energetic reasoning. In Willem Jan van Hoeve, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, volume 10848 of *Lecture Notes in Computer Science*, pages 477–494. Springer, 2018. doi:10.1007/978-3-319-93031-2\\_34.
- [398] Yanick Ouellet and Claude-Guy Quimper. A mincumulative resource constraint. In Pierre Schaus, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 19th International Conference, CPAIOR 2022, Los Angeles, CA, USA, June 20-23, 2022, Proceedings*, volume 13292 of *Lecture Notes in Computer Science*, pages 318–334. Springer, 2022. doi:10.1007/978-3-031-08011-1\\_21.
- [399] Soukaina Oujana, Lionel Amodeo, Farouk Yalaoui, and D. Brodard. Solving a realistic hybrid and flexible flow shop scheduling problem through constraint programming: industrial case in a packaging company. In *8th International Conference on Control, Decision and Information Technologies, CoDIT 2022, Istanbul, Turkey, May 17-20, 2022*, pages 106–111. IEEE, 2022. URL: <https://doi.org/10.1109/CoDIT55151.2022.9803972>, doi:10.1109/CODIT55151.2022.9803972.

- [400] Cemalettin Öztürk, Semra Tunali, Brahim Hnich, and M. Arslan Ornek. Balancing and scheduling of flexible mixed model assembly lines. *Constraints An Int. J.*, 18(3):434–469, 2013. URL: <https://doi.org/10.1007/s10601-013-9142-6>, doi:10.1007/S10601-013-9142-6.
- [401] Vaibhav Pandey and Poonam Saini. Constraint programming versus heuristic approach to mapreduce scheduling problem in hadoop YARN for energy minimization. *J. Supercomput.*, 77(7):6788–6816, 2021. URL: <https://doi.org/10.1007/s11227-020-03516-3>, doi:10.1007/S11227-020-03516-3.
- [402] Claude Le Pape. Implementation of resource constraints in ilog schedule: a library for the development of constraint-based scheduling systems. *Intelligent Systems Engineering*, 3(2):55, 1994. URL: <http://dx.doi.org/10.1049/ise.1994.0009>, doi:10.1049/ise.1994.0009.
- [403] Claude Le Pape and Philippe Baptiste. A constraint programming library for preemptive and non-preemptive scheduling. In Mark Wallace, editor, *Proceedings of the Third International Conference on the Practical Application of Constraint Technology, PACT 1997, Westminster Central Hall, London, UK, April 23-25, 1997*, pages 237–256. Practical Application Company Ltd., 1997.
- [404] Claude Le Pape and Philippe Baptiste. Resource constraints for preemptive job-shop scheduling. *Constraints An Int. J.*, 3(4):263–287, 1998. doi:10.1023/A:1009723704757.
- [405] Hoonseok Park, Jumyung Um, Jae-Yoon Jung, and Martin Ruskowski. Developing a production scheduling system for modular factory using constraint programming. In Karsten Berns and Daniel Görges, editors, *Advances in Service and Industrial Robotics - Proceedings of the 28th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2019, Kaiserslautern, Germany, June 19-21, 2019*, volume 980 of *Advances in Intelligent Systems and Computing*, pages 126–133. Springer, 2019. doi:10.1007/978-3-030-19648-6\_15.
- [406] Joseph C. Pemberton and Flavius Galiber III. A constraint-based approach to satellite scheduling. In Eugene C. Freuder and Richard J. Wallace, editors, *Constraint Programming and Large Scale Discrete Optimization, Proceedings of a DIMACS Workshop, Princeton, New Jersey, USA, September 14-17, 1998*, volume 57 of *DIMACS Series in Discrete Mathematics and Theoretical Computer Science*, pages 101–114. DIMACS/AMS, 1998. URL: <https://doi.org/10.1090/dimacs/057/06>, doi:10.1090/DIMACS/057/06.
- [407] Guillaume Perez, Gaël Glorian, Wijnand Suijlen, and Arnaud Lallouet. A constraint programming model for scheduling the unloading of trains in ports. In *35th IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2023, Atlanta, GA, USA, November 6-8, 2023*, pages 693–699. IEEE, 2023. doi:10.1109/ICTAI59109.2023.00108.
- [408] Guillaume Perez, Gael Glorian, Wijnand Suijlen, and Arnaud Lallouet. A constraint programming model for scheduling the unloading of trains in ports: Extended. *CoRR*, abs/2312.13682, 2023. URL: <https://doi.org/10.48550/arXiv.2312.13682>, arXiv:2312.13682, doi:10.48550/ARXIV.2312.13682.
- [409] Gilles Pesant, Gregory Rix, and Louis-Martin Rousseau. A comparative study of MIP and CP formulations for the B2B scheduling optimization problem. In Laurent Michel, editor, *Integration of AI and OR Techniques in Constraint Programming - 12th International Conference, CPAIOR 2015, Barcelona, Spain, May 18-22, 2015, Proceedings*, volume 9075 of *Lecture Notes in Computer Science*, pages 306–321. Springer, 2015. doi:10.1007/978-3-319-18008-3\_21.
- [410] Thierry Petit and Emmanuel Poder. The soft cumulative constraint. *CoRR*, abs/0907.0939, 2009. URL: <http://arxiv.org/abs/0907.0939>, arXiv:0907.0939.
- [411] Emmanuel Poder and Nicolas Beldiceanu. Filtering for a continuous multi-resources cumulative constraint with resource consumption and production. In Jussi Rintanen, Bernhard Nebel, J. Christopher Beck, and Eric A. Hansen, editors, *Proceedings of the Eighteenth International Conference on Automated Planning and Scheduling, ICAPS 2008, Sydney, Australia, September 14-18, 2008*, pages 264–271. AAAI, 2008. URL: <http://www.aaai.org/Library/ICAPS/2008/icaps08-033.php>.

- [412] Emmanuel Poder, Nicolas Beldiceanu, and Eric Sanlaville. Computing a lower approximation of the compulsory part of a task with varying duration and varying resource consumption. *Eur. J. Oper. Res.*, 153(1):239–254, 2004. doi:10.1016/S0377-2217(02)00756-7.
- [413] Maximilian Pohl, Christian Artigues, and Rainer Kolisch. Solving the time-discrete winter runway scheduling problem: A column generation and constraint programming approach. *Eur. J. Oper. Res.*, 299(2):674–689, 2022. URL: <https://doi.org/10.1016/j.ejor.2021.08.028>, doi:10.1016/J.EJOR.2021.08.028.
- [414] Oliver Polo-Mejía, Christian Artigues, Pierre Lopez, and Virginie Basini. Mixed-integer/linear and constraint programming approaches for activity scheduling in a nuclear research facility. *Int. J. Prod. Res.*, 58(23):7149–7166, 2020. doi:10.1080/00207543.2019.1693654.
- [415] Louis Popovic, Alain Côté, Mohamed Gaha, Franklin Nguemouo, and Quentin Cappart. Scheduling the equipment maintenance of an electric power transmission network using constraint programming. In Christine Solnon, editor, *28th International Conference on Principles and Practice of Constraint Programming, CP 2022, July 31 to August 8, 2022, Haifa, Israel*, volume 235 of *LIPIcs*, pages 34:1–34:15. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022. URL: <https://doi.org/10.4230/LIPIcs.CP.2022.34>, doi:10.4230/LIPICS.CP.2022.34.
- [416] Shahrzad M. Pour, John H. Drake, Lena Secher Ejlersen, Kourosh Marjani Rasmussen, and Edmund K. Burke. A hybrid constraint programming/mixed integer programming framework for the preventive signaling maintenance crew scheduling problem. *Eur. J. Oper. Res.*, 269(1):341–352, 2018. URL: <https://doi.org/10.1016/j.ejor.2017.08.033>, doi:10.1016/J.EJOR.2017.08.033.
- [417] Guillaume Povéda, Nahum Álvarez, and Christian Artigues. Partially preemptive multi skill/mode resource-constrained project scheduling with generalized precedence relations and calendars. In Roland H. C. Yap, editor, *29th International Conference on Principles and Practice of Constraint Programming, CP 2023, August 27-31, 2023, Toronto, Canada*, volume 280 of *LIPIcs*, pages 31:1–31:21. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2023. URL: <https://doi.org/10.4230/LIPIcs.CP.2023.31>, doi:10.4230/LIPICS.CP.2023.31.
- [418] Cédric Pralet. An incomplete constraint-based system for scheduling with renewable resources. In J. Christopher Beck, editor, *Principles and Practice of Constraint Programming - 23rd International Conference, CP 2017, Melbourne, VIC, Australia, August 28 - September 1, 2017, Proceedings*, volume 10416 of *Lecture Notes in Computer Science*, pages 243–261. Springer, 2017. doi:10.1007/978-3-319-66158-2\_16.
- [419] Cédric Pralet, Solange Lemai-Chenevier, and Jean Jaubert. Scheduling running modes of satellite instruments using constraint-based local search. In Gilles Pesant, editor, *Principles and Practice of Constraint Programming - 21st International Conference, CP 2015, Cork, Ireland, August 31 - September 4, 2015, Proceedings*, volume 9255 of *Lecture Notes in Computer Science*, pages 704–719. Springer, 2015. doi:10.1007/978-3-319-23219-5\_48.
- [420] Bruno A. Prata, Levi R. Abreu, and Marcelo S. Nagano. Applications of constraint programming in production scheduling problems: A descriptive bibliometric analysis. *Results in Control and Optimization*, 14:100350, 2024. URL: <https://www.sciencedirect.com/science/article/pii/S2666720723001522>, doi: <https://doi.org/10.1016/j.rico.2023.100350>.
- [421] Jean-Francois Puget. Applications of constraint programming. In Ugo Montanari and Francesca Rossi, editors, *Principles and Practice of Constraint Programming - CP'95, First International Conference, CP'95, Cassis, France, September 19-22, 1995, Proceedings*, volume 976 of *Lecture Notes in Computer Science*, pages 647–650. Springer, 1995. doi:10.1007/3-540-60299-2\_43.
- [422] Ming Qin, Runsen Wang, Zhongshun Shi, Lingxuan Liu, and Leyuan Shi. A genetic programming-based scheduling approach for hybrid flow shop with a batch processor and waiting time constraint. *IEEE Trans Autom. Sci. Eng.*, 18(1):94–105, 2021. doi:10.1109/TASE.2019.2947398.
- [423] Tianbao Qin, Yuquan Du, Jiang Hang Chen, and Mei Sha. Combining mixed integer programming and constraint programming to solve the integrated scheduling problem of container handling operations of a single vessel. *Eur. J. Oper. Res.*, 285(3):884–901, 2020. URL: <https://doi.org/10.1016/j.ejor.2020.02.021>, doi:10.1016/J.EJOR.2020.02.021.

- [424] Yang Qu, Juha-Pekka Soininen, and Jari Nurmi. Using constraint programming to achieve optimal prefetch scheduling for dependent tasks on run-time reconfigurable devices. In *International Symposium on System-on-Chip, SoC 2006, Tampere, Finland, November 13-16, 2006*, pages 1–4. IEEE, 2006. doi:10.1109/ISSOC.2006.321973.
- [425] Oscar Quiroga, Luis Zeballos, and Gabriela P. Henning. A constraint programming approach to tool allocation and resource scheduling in FMS. In *Proceedings of the 2005 IEEE International Conference on Robotics and Automation, ICRA 2005, April 18-22, 2005, Barcelona, Spain*, pages 3715–3720. IEEE, 2005. doi:10.1109/ROBOT.2005.1570686.
- [426] Andrea Rendl, Matthias Prandtstetter, Gerhard Hiermann, Jakob Puchinger, and Günther R. Raidl. Hybrid heuristics for multimodal homecare scheduling. In Nicolas Beldiceanu, Narendra Jussien, and Eric Pinson, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 9th International Conference, CPAIOR 2012, Nantes, France, May 28 - June 1, 2012. Proceedings*, volume 7298 of *Lecture Notes in Computer Science*, pages 339–355. Springer, 2012. doi:10.1007/978-3-642-29828-8\_22.
- [427] Vahid Riahi, M. A. Hakim Newton, Kaile Su, and Abdul Sattar. Local search for flowshops with setup times and blocking constraints. In Mathijs de Weerd, Sven Koenig, Gabriele Röger, and Matthijs T. J. Spaan, editors, *Proceedings of the Twenty-Eighth International Conference on Automated Planning and Scheduling, ICAPS 2018, Delft, The Netherlands, June 24-29, 2018*, pages 199–207. AAAI Press, 2018. URL: <https://aaai.org/ocs/index.php/ICAPS/ICAPS18/paper/view/17755>.
- [428] Robert Rodosek and Mark Wallace. A generic model and hybrid algorithm for hoist scheduling problems. In Michael J. Maher and Jean-Francois Puget, editors, *Principles and Practice of Constraint Programming - CP98, 4th International Conference, Pisa, Italy, October 26-30, 1998, Proceedings*, volume 1520 of *Lecture Notes in Computer Science*, pages 385–399. Springer, 1998. doi:10.1007/3-540-49481-2\_28.
- [429] Joaquin Rodriguez, Xavier Delorme, and Xavier Gandibleux. Railway infrastructure saturation using constraint programming approach. *Computers in Railways VIII*, pages 807–816, 01 2002.
- [430] Joaquín Rodríguez. A constraint programming model for real-time train scheduling at junctions. *Transportation Research Part B: Methodological*, 41(2):231–245, 2007. Advanced Modelling of Train Operations in Stations and Networks. URL: <https://www.sciencedirect.com/science/article/pii/S0191261506000233>, doi:<https://doi.org/10.1016/j.trb.2006.02.006>.
- [431] Roberto Rossi, Armagan Tarim, Brahim Hnich, and Steven D. Prestwich. Replenishment planning for stochastic inventory systems with shortage cost. In Pascal Van Hentenryck and Laurence A. Wolsey, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 4th International Conference, CPAIOR 2007, Brussels, Belgium, May 23-26, 2007, Proceedings*, volume 4510 of *Lecture Notes in Computer Science*, pages 229–243. Springer, 2007. doi:10.1007/978-3-540-72397-4\_17.
- [432] Martino Ruggiero, Davide Bertozzi, Luca Benini, Michela Milano, and Alexandru Andrei. Reducing the abstraction and optimality gaps in the allocation and scheduling for variable voltage/frequency mpsoe platforms. *IEEE Trans. Comput. Aided Des. Integr. Circuits Syst.*, 28(3):378–391, 2009. doi:10.1109/TCAD.2009.2013536.
- [433] David Sacramento, Christine Solnon, and David Pisinger. Constraint programming and local search heuristic: a matheuristic approach for routing and scheduling feeder vessels in multi-terminal ports. *Oper. Res. Forum*, 1(4), 2020. URL: <https://doi.org/10.1007/s43069-020-00036-x>, doi:10.1007/s43069-020-00036-x.
- [434] Ruslan Sadykov. A hybrid branch-and-cut algorithm for the one-machine scheduling problem. In Jean-Charles Régin and Michel Rueher, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, First International Conference, CPAIOR 2004, Nice, France, April 20-22, 2004, Proceedings*, volume 3011 of *Lecture Notes in Computer Science*, pages 409–415. Springer, 2004. doi:10.1007/978-3-540-24664-0\_31.

- [435] Ruslan Sadykov and Laurence A. Wolsey. Integer programming and constraint programming in solving a multimachine assignment scheduling problem with deadlines and release dates. *INFORMS J. Comput.*, 18(2):209–217, 2006. URL: <https://doi.org/10.1287/ijoc.1040.0110>, doi:10.1287/IJOC.1040.0110.
- [436] Hani El Sakkout and Mark Wallace. Probe backtrack search for minimal perturbation in dynamic scheduling. *Constraints An Int. J.*, 5(4):359–388, 2000. doi:10.1023/A:1009856210543.
- [437] Pierre Schaus, Pascal Van Hentenryck, Jean-Noël Monette, Carleton Coffrin, Laurent Michel, and Yves Deville. Solving steel mill slab problems with constraint-based techniques: Cp, Ins, and CBLs. *Constraints An Int. J.*, 16(2):125–147, 2011. URL: <https://doi.org/10.1007/s10601-010-9100-5>, doi:10.1007/S10601-010-9100-5.
- [438] Klaus Schild and Jörg Würtz. Scheduling of time-triggered real-time systems. *Constraints An Int. J.*, 5(4):335–357, 2000. doi:10.1023/A:1009804226473.
- [439] Andreas Schutt, Geoffrey Chu, Peter J. Stuckey, and Mark G. Wallace. Maximising the net present value for resource-constrained project scheduling. In Nicolas Beldiceanu, Narendra Jussien, and Eric Pinson, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 9th International Conference, CPAIOR 2012, Nantes, France, May 28 - June 1, 2012. Proceedings*, volume 7298 of *Lecture Notes in Computer Science*, pages 362–378. Springer, 2012. doi:10.1007/978-3-642-29828-8\_24.
- [440] Andreas Schutt, Thibaut Feydy, and Peter J. Stuckey. Explaining time-table-edge-finding propagation for the cumulative resource constraint. In Carla P. Gomes and Meinolf Sellmann, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 10th International Conference, CPAIOR 2013, Yorktown Heights, NY, USA, May 18-22, 2013. Proceedings*, volume 7874 of *Lecture Notes in Computer Science*, pages 234–250. Springer, 2013. doi:10.1007/978-3-642-38171-3\_16.
- [441] Andreas Schutt, Thibaut Feydy, and Peter J. Stuckey. Scheduling optional tasks with explanation. In Christian Schulte, editor, *Principles and Practice of Constraint Programming - 19th International Conference, CP 2013, Uppsala, Sweden, September 16-20, 2013. Proceedings*, volume 8124 of *Lecture Notes in Computer Science*, pages 628–644. Springer, 2013. doi:10.1007/978-3-642-40627-0\_47.
- [442] Andreas Schutt, Thibaut Feydy, Peter J. Stuckey, and Mark Wallace. Why cumulative decomposition is not as bad as it sounds. In Ian P. Gent, editor, *Principles and Practice of Constraint Programming - CP 2009, 15th International Conference, CP 2009, Lisbon, Portugal, September 20-24, 2009. Proceedings*, volume 5732 of *Lecture Notes in Computer Science*, pages 746–761. Springer, 2009. doi:10.1007/978-3-642-04244-7\_58.
- [443] Andreas Schutt, Thibaut Feydy, Peter J. Stuckey, and Mark G. Wallace. Solving the resource constrained project scheduling problem with generalized precedences by lazy clause generation. *CoRR*, abs/1009.0347, 2010. URL: <http://arxiv.org/abs/1009.0347>, arXiv:1009.0347.
- [444] Andreas Schutt, Thibaut Feydy, Peter J. Stuckey, and Mark G. Wallace. Explaining the cumulative propagator. *Constraints An Int. J.*, 16(3):250–282, 2011. URL: <https://doi.org/10.1007/s10601-010-9103-2>, doi:10.1007/S10601-010-9103-2.
- [445] Andreas Schutt, Thibaut Feydy, Peter J. Stuckey, and Mark G. Wallace. Solving rcpsp/max by lazy clause generation. *J. Sched.*, 16(3):273–289, 2013. URL: <https://doi.org/10.1007/s10951-012-0285-x>, doi:10.1007/S10951-012-0285-X.
- [446] Andreas Schutt, Thibaut Feydy, Peter J. Stuckey, and Mark G. Wallace. *A Satisfiability Solving Approach*, pages 135–160. Springer International Publishing, Cham, 2015. doi:10.1007/978-3-319-05443-8\_7.
- [447] Andreas Schutt and Peter J. Stuckey. Explaining producer/consumer constraints. In Michel Rueher, editor, *Principles and Practice of Constraint Programming - 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016. Proceedings*, volume 9892 of *Lecture Notes in Computer Science*, pages 438–454. Springer, 2016. doi:10.1007/978-3-319-44953-1\_28.

- [448] Andreas Schutt and Armin Wolf. A new  $O(n^2 \log n)$  not-first/not-last pruning algorithm for cumulative resource constraints. In David Cohen, editor, *Principles and Practice of Constraint Programming - CP 2010 - 16th International Conference, CP 2010, St. Andrews, Scotland, UK, September 6-10, 2010. Proceedings*, volume 6308 of *Lecture Notes in Computer Science*, pages 445–459. Springer, 2010. doi:10.1007/978-3-642-15396-9\\_36.
- [449] Andreas Schutt, Armin Wolf, and Gunnar Schrader. Not-first and not-last detection for cumulative scheduling in  $O(n^3 \log n)$ . In Masanobu Umeda, Armin Wolf, Oskar Bartenstein, Ulrich Geske, Dietmar Seipel, and Osamu Takata, editors, *Declarative Programming for Knowledge Management, 16th International Conference on Applications of Declarative Programming and Knowledge Management, INAP 2005, Fukuoka, Japan, October 22-24, 2005, Revised Selected Papers*, volume 4369 of *Lecture Notes in Computer Science*, pages 66–80. Springer, 2005. doi:10.1007/11963578\\_6.
- [450] Thiago Serra, Gilberto Nishioka, and Fernando J. M. Marcellino. The offshore resources scheduling problem: Detailing a constraint programming approach. In Michela Milano, editor, *Principles and Practice of Constraint Programming - 18th International Conference, CP 2012, Québec City, QC, Canada, October 8-12, 2012. Proceedings*, volume 7514 of *Lecture Notes in Computer Science*, pages 823–839. Springer, 2012. doi:10.1007/978-3-642-33558-7\\_59.
- [451] Aftab Ahmed Shaikh and Abdullah Ayub Khan. Management of electronic ledger: a constraint programming approach for solving curricula scheduling problems. *Int. J. Electron. Secur. Digit. Forensics*, 15(1):88–99, 2023. doi:10.1504/IJESDF.2023.10045616.
- [452] Paul Shaw. Using constraint programming and local search methods to solve vehicle routing problems. In Michael J. Maher and Jean-Francois Puget, editors, *Principles and Practice of Constraint Programming - CP98, 4th International Conference, Pisa, Italy, October 26-30, 1998, Proceedings*, volume 1520 of *Lecture Notes in Computer Science*, pages 417–431. Springer, 1998. doi:10.1007/3-540-49481-2\\_30.
- [453] Ganquan Shi, Zhouwang Yang, Yang Xu, and Yuchen Quan. Solving the integrated process planning and scheduling problem using an enhanced constraint programming-based approach. *Int. J. Prod. Res.*, 60(18):5505–5522, 2022. doi:10.1080/00207543.2021.1963496.
- [454] Seung Yeob Shin, Yuriy Brun, Hari Balasubramanian, Philip L. Henneman, and Leon J. Osterweil. Discrete-event simulation and integer linear programming for constraint-aware resource scheduling. *IEEE Trans. Syst. Man Cybern. Syst.*, 48(9):1578–1593, 2018. doi:10.1109/TSMC.2017.2681623.
- [455] Mohamed Siala. Search, propagation, and learning in sequencing and scheduling problems. *Constraints An Int. J.*, 20(4):479–480, 2015. URL: <https://doi.org/10.1007/s10601-015-9213-y>, doi:10.1007/S10601-015-9213-Y.
- [456] Mohamed Siala. *Search, propagation, and learning in sequencing and scheduling problems. (Recherche, propagation et apprentissage dans les problèmes de séquençement et d’ordonnancement)*. PhD thesis, INSA Toulouse, France, 2015. URL: <https://tel.archives-ouvertes.fr/tel-01164291>.
- [457] Mohamed Siala, Christian Artigues, and Emmanuel Hebrard. Two clause learning approaches for disjunctive scheduling. In Gilles Pesant, editor, *Principles and Practice of Constraint Programming - 21st International Conference, CP 2015, Cork, Ireland, August 31 - September 4, 2015, Proceedings*, volume 9255 of *Lecture Notes in Computer Science*, pages 393–402. Springer, 2015. doi:10.1007/978-3-319-23219-5\\_28.
- [458] Gilles Simonin, Christian Artigues, Emmanuel Hebrard, and Pierre Lopez. Scheduling scientific experiments on the rosetta/philae mission. In Michela Milano, editor, *Principles and Practice of Constraint Programming - 18th International Conference, CP 2012, Québec City, QC, Canada, October 8-12, 2012. Proceedings*, volume 7514 of *Lecture Notes in Computer Science*, pages 23–37. Springer, 2012. doi:10.1007/978-3-642-33558-7\\_5.
- [459] Gilles Simonin, Christian Artigues, Emmanuel Hebrard, and Pierre Lopez. Scheduling scientific experiments for comet exploration. *Constraints An Int. J.*, 20(1):77–99, 2015. URL: <https://doi.org/10.1007/s10601-014-9169-3>, doi:10.1007/S10601-014-9169-3.



- [460] Helmut Simonis. The CHIP system and its applications. In Ugo Montanari and Francesca Rossi, editors, *Principles and Practice of Constraint Programming - CP'95, First International Conference, CP'95, Cassis, France, September 19-22, 1995, Proceedings*, volume 976 of *Lecture Notes in Computer Science*, pages 643–646. Springer, 1995. doi:10.1007/3-540-60299-2\_42.
- [461] Helmut Simonis. Models for global constraint applications. *Constraints An Int. J.*, 12(1):63–92, 2007. URL: <https://doi.org/10.1007/s10601-006-9011-7>, doi:10.1007/S10601-006-9011-7.
- [462] Helmut Simonis and Trijntje Cornelissens. Modelling producer/consumer constraints. In Ugo Montanari and Francesca Rossi, editors, *Principles and Practice of Constraint Programming - CP'95, First International Conference, CP'95, Cassis, France, September 19-22, 1995, Proceedings*, volume 976 of *Lecture Notes in Computer Science*, pages 449–462. Springer, 1995. doi:10.1007/3-540-60299-2\_27.
- [463] Francis Sourd and Wim Nuijten. Multiple-machine lower bounds for shop-scheduling problems. *INFORMS J. Comput.*, 12(4):341–352, 2000. URL: <https://doi.org/10.1287/ijoc.12.4.341.11881>, doi:10.1287/IJOC.12.4.341.11881.
- [464] Samuel Squillaci, Cédric Pralet, and Stéphanie Roussel. Scheduling complex observation requests for a constellation of satellites: Large neighborhood search approaches. In André A. Ciré, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 20th International Conference, CPAIOR 2023, Nice, France, May 29 - June 1, 2023, Proceedings*, volume 13884 of *Lecture Notes in Computer Science*, pages 443–459. Springer, 2023. doi:10.1007/978-3-031-33271-5\_29.
- [465] Kemal Subulan and Gizem Çakir. Constraint programming-based transformation approach for a mixed fuzzy-stochastic resource investment project scheduling problem. *Soft Comput.*, 26(5):2523–2560, 2022. URL: <https://doi.org/10.1007/s00500-021-06399-5>, doi:10.1007/S00500-021-06399-5.
- [466] Yuan Sun, Su Nguyen, Dhananjay R. Thiruvady, Xiaodong Li, Andreas T. Ernst, and Uwe Aickelin. Enhancing constraint programming via supervised learning for job shop scheduling. *CoRR*, abs/2211.14492, 2022. URL: <https://doi.org/10.48550/arXiv.2211.14492>, arXiv:2211.14492, doi:10.48550/ARXIV.2211.14492.
- [467] Zheng Sun, Hong Li, Min Yao, and Nan Li. Scheduling optimization techniques for flexray using constraint-programming. In Peidong Zhu, Lizhe Wang, Feng Xia, Huajun Chen, Ian McLoughlin, Shiao-Li Tsao, Mitsuhsa Sato, Sun-Ki Chai, and Irwin King, editors, *2010 IEEE/ACM Int'l Conference on Green Computing and Communications, GreenCom 2010, & Int'l Conference on Cyber, Physical and Social Computing, CPSCom 2010, Hangzhou, China, December 18-20, 2010*, pages 931–936. IEEE Computer Society, 2010. URL: <https://doi.org/10.1109/GreenCom-CPSCom.2010.111>, doi:10.1109/GREENCOM-CPSCOM.2010.111.
- [468] Suresh Sundaram, V. Mani, S. N. Omkar, and H. J. Kim. Divisible load scheduling in distributed system with buffer constraints: genetic algorithm and linear programming approach. *Int. J. Parallel Emergent Distributed Syst.*, 21(5):303–321, 2006. doi:10.1080/17445760600567842.
- [469] Jiri Svancara and Roman Barták. Tackling train routing via multi-agent pathfinding and constraint-based scheduling. In Ana Paula Rocha, Luc Steels, and H. Jaap van den Herik, editors, *Proceedings of the 14th International Conference on Agents and Artificial Intelligence, ICAART 2022, Volume 1, Online Streaming, February 3-5, 2022*, pages 306–313. SCITEPRESS, 2022. doi:10.5220/0010869700003116.
- [470] Ria Szeredi and Andreas Schutt. Modelling and solving multi-mode resource-constrained project scheduling. In Michel Rueher, editor, *Principles and Practice of Constraint Programming - 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016, Proceedings*, volume 9892 of *Lecture Notes in Computer Science*, pages 483–492. Springer, 2016. doi:10.1007/978-3-319-44953-1\_31.
- [471] Eric Taillard. Benchmarks for basic scheduling problems. *European Journal of Operational Research*, 64(2):278–285, January 1993. URL: [http://dx.doi.org/10.1016/0377-2217\(93\)90182-m](http://dx.doi.org/10.1016/0377-2217(93)90182-m), doi:10.1016/0377-2217(93)90182-m.

- [472] Tanya Y. Tang and J. Christopher Beck. CP and hybrid models for two-stage batching and scheduling. In Emmanuel Hebrard and Nysret Musliu, editors, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 17th International Conference, CPAIOR 2020, Vienna, Austria, September 21-24, 2020, Proceedings*, volume 12296 of *Lecture Notes in Computer Science*, pages 431–446. Springer, 2020. doi:10.1007/978-3-030-58942-4\_28.
- [473] Yuanjie Tang, Rengkui Liu, Futian Wang, Quanxin Sun, and Amr A. Kandil. Scheduling optimization of linear schedule with constraint programming. *Comput. Aided Civ. Infrastructure Eng.*, 33(2):124–151, 2018. URL: <https://doi.org/10.1111/mice.12277>, doi:10.1111/MICE.12277.
- [474] Fabio Tardivo, Agostino Dovier, Andrea Formisano, Laurent Michel, and Enrico Pontelli. Constraint propagation on GPU: A case study for the cumulative constraint. In André A. Ciré, editor, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 20th International Conference, CPAIOR 2023, Nice, France, May 29 - June 1, 2023, Proceedings*, volume 13884 of *Lecture Notes in Computer Science*, pages 336–353. Springer, 2023. doi:10.1007/978-3-031-33271-5\_22.
- [475] Pierre Tassel, Martin Gebser, and Konstantin Schekotihin. An end-to-end reinforcement learning approach for job-shop scheduling problems based on constraint programming. In Sven Koenig, Roni Stern, and Mauro Vallati, editors, *Proceedings of the Thirty-Third International Conference on Automated Planning and Scheduling, July 8-13, 2023, Prague, Czech Republic*, pages 614–622. AAAI Press, 2023. URL: <https://doi.org/10.1609/icaps.v33i1.27243>, doi:10.1609/ICAPS.V33I1.27243.
- [476] Pierre Tassel, Martin Gebser, and Konstantin Schekotihin. An end-to-end reinforcement learning approach for job-shop scheduling problems based on constraint programming. *CoRR*, abs/2306.05747, 2023. URL: <https://doi.org/10.48550/arXiv.2306.05747>, arXiv:2306.05747, doi:10.48550/ARXIV.2306.05747.
- [477] David B. H. Tay. COPS: A constraint programming approach to resource-limited project scheduling. *Comput. J.*, 35(Additional-Papers):A237–A249, 1992.
- [478] Erich Christian Teppan. Types of flexible job shop scheduling: A constraint programming experiment. In Ana Paula Rocha, Luc Steels, and H. Jaap van den Herik, editors, *Proceedings of the 14th International Conference on Agents and Artificial Intelligence, ICAART 2022, Volume 3, Online Streaming, February 3-5, 2022*, pages 516–523. SCITEPRESS, 2022. doi:10.5220/0010849900003116.
- [479] Daria Terekhov, Mustafa K. Dogru, Ulas Özen, and J. Christopher Beck. Solving two-machine assembly scheduling problems with inventory constraints. *Comput. Ind. Eng.*, 63(1):120–134, 2012. URL: <https://doi.org/10.1016/j.cie.2012.02.006>, doi:10.1016/J.CIE.2012.02.006.
- [480] Daria Terekhov, Tony T. Tran, Douglas G. Down, and J. Christopher Beck. Integrating queueing theory and scheduling for dynamic scheduling problems. *J. Artif. Intell. Res.*, 50:535–572, 2014. URL: <https://doi.org/10.1613/jair.4278>, doi:10.1613/JAIR.4278.
- [481] Alexander Tesch. A nearly exact propagation algorithm for energetic reasoning in  $\mathcal{O}(n^2 \log n)$ . In Michel Rueher, editor, *Principles and Practice of Constraint Programming - 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016, Proceedings*, volume 9892 of *Lecture Notes in Computer Science*, pages 493–519. Springer, 2016. doi:10.1007/978-3-319-44953-1\_32.
- [482] Alexander Tesch. Improving energetic propagations for cumulative scheduling. In John N. Hooker, editor, *Principles and Practice of Constraint Programming - 24th International Conference, CP 2018, Lille, France, August 27-31, 2018, Proceedings*, volume 11008 of *Lecture Notes in Computer Science*, pages 629–645. Springer, 2018. doi:10.1007/978-3-319-98334-9\_41.
- [483] Dhananjay R. Thiruvady, Christian Blum, Bernd Meyer, and Andreas T. Ernst. Hybridizing beam-aco with constraint programming for single machine job scheduling. In Maria J. Blesa, Christian Blum, Luca Di Gaspero, Andrea Roli, Michael Sampels, and Andrea Schaerf, editors, *Hybrid Metaheuristics, 6th International Workshop, HM 2009, Udine, Italy, October 16-17, 2009. Proceedings*, volume 5818 of *Lecture Notes in Computer Science*, pages 30–44. Springer, 2009. doi:10.1007/978-3-642-04918-7\_3.

- [484] Dhananjay R. Thiruvady, Mark Wallace, Hanyu Gu, and Andreas Schutt. A lagrangian relaxation and ACO hybrid for resource constrained project scheduling with discounted cash flows. *J. Heuristics*, 20(6):643–676, 2014. URL: <https://doi.org/10.1007/s10732-014-9260-3>, doi:10.1007/S10732-014-9260-3.
- [485] Erlendur S. Thorsteinsson. Branch-and-check: A hybrid framework integrating mixed integer programming and constraint logic programming. In Toby Walsh, editor, *Principles and Practice of Constraint Programming - CP 2001, 7th International Conference, CP 2001, Paphos, Cyprus, November 26 - December 1, 2001, Proceedings*, volume 2239 of *Lecture Notes in Computer Science*, pages 16–30. Springer, 2001. doi:10.1007/3-540-45578-7\\_2.
- [486] Christian Timpe. Solving planning and scheduling problems with combined integer and constraint programming. *OR Spectr.*, 24(4):431–448, 2002. URL: <https://doi.org/10.1007/s00291-002-0107-1>, doi:10.1007/S00291-002-0107-1.
- [487] Mary Tom. Fuzzy multi-constraint programming model for weekly meals scheduling. In *2019 IEEE International Conference on Fuzzy Systems, FUZZ-IEEE 2019, New Orleans, LA, USA, June 23-26, 2019*, pages 1–6. IEEE, 2019. doi:10.1109/FUZZ-IEEE.2019.8859029.
- [488] Seyda Topaloglu and Irem Ozkarahan. A constraint programming-based solution approach for medical resident scheduling problems. *Comput. Oper. Res.*, 38(1):246–255, 2011. URL: <https://doi.org/10.1016/j.cor.2010.04.018>, doi:10.1016/J.COR.2010.04.018.
- [489] Philippe Torres and Pierre Lopez. On not-first/not-last conditions in disjunctive scheduling. *European Journal of Operational Research*, 127(2):332–343, December 2000. URL: [http://dx.doi.org/10.1016/S0377-2217\(99\)00497-X](http://dx.doi.org/10.1016/S0377-2217(99)00497-X), doi:10.1016/S0377-2217(99)00497-X.
- [490] Meriem Touat, Belaid Benhamou, and Fatima Benbouzid-Si Tayeb. A constraint programming model for the scheduling problem with flexible maintenance under human resource constraints. In Ana Paula Rocha, Luc Steels, and H. Jaap van den Herik, editors, *Proceedings of the 14th International Conference on Agents and Artificial Intelligence, ICAART 2022, Volume 3, Online Streaming, February 3-5, 2022*, pages 195–202. SCITEPRESS, 2022.
- [491] Touraïvane. Constraint programming and industrial applications. In Ugo Montanari and Francesca Rossi, editors, *Principles and Practice of Constraint Programming - CP’95, First International Conference, CP’95, Cassis, France, September 19-22, 1995, Proceedings*, volume 976 of *Lecture Notes in Computer Science*, pages 640–642. Springer, 1995. doi:10.1007/3-540-60299-2\\_41.
- [492] Tony T. Tran, Arthur Araujo, and J. Christopher Beck. Decomposition methods for the parallel machine scheduling problem with setups. *INFORMS J. Comput.*, 28(1):83–95, 2016. URL: <https://doi.org/10.1287/ijoc.2015.0666>, doi:10.1287/IJOC.2015.0666.
- [493] Tony T. Tran and J. Christopher Beck. Logic-based benders decomposition for alternative resource scheduling with sequence dependent setups. In Luc De Raedt, Christian Bessiere, Didier Dubois, Patrick Doherty, Paolo Frasconi, Fredrik Heintz, and Peter J. F. Lucas, editors, *ECAI 2012 - 20th European Conference on Artificial Intelligence. Including Prestigious Applications of Artificial Intelligence (PAIS-2012) System Demonstrations Track, Montpellier, France, August 27-31, 2012*, volume 242 of *Frontiers in Artificial Intelligence and Applications*, pages 774–779. IOS Press, 2012. doi:10.3233/978-1-61499-098-7-774.
- [494] Tony T. Tran, Minh Do, Eleanor Gilbert Rieffel, Jeremy Frank, Zhihui Wang, Bryan O’Gorman, Davide Venturelli, and J. Christopher Beck. A hybrid quantum-classical approach to solving scheduling problems. In Jorge A. Baier and Adi Botea, editors, *Proceedings of the Ninth Annual Symposium on Combinatorial Search, SOCS 2016, Tarrytown, NY, USA, July 6-8, 2016*, pages 98–106. AAAI Press, 2016. URL: <https://doi.org/10.1609/socs.v7i1.18390>, doi:10.1609/SOCS.V7I1.18390.
- [495] Tony T. Tran, Meghana Padmanabhan, Peter Yun Zhang, Heyse Li, Douglas G. Down, and J. Christopher Beck. Multi-stage resource-aware scheduling for data centers with heterogeneous servers. *J. Sched.*, 21(2):251–267, 2018. URL: <https://doi.org/10.1007/s10951-017-0537-X>, doi:10.1007/S10951-017-0537-X.

- [496] Tony T. Tran, Daria Terekhov, Douglas G. Down, and J. Christopher Beck. Hybrid queueing theory and scheduling models for dynamic environments with sequence-dependent setup times. In Daniel Borrajo, Subbarao Kambhampati, Angelo Oddi, and Simone Fratini, editors, *Proceedings of the Twenty-Third International Conference on Automated Planning and Scheduling, ICAPS 2013, Rome, Italy, June 10-14, 2013*. AAAI, 2013. URL: <http://www.aaai.org/ocs/index.php/ICAPS/ICAPS13/paper/view/6005>.
- [497] Tony T. Tran, Tiago Stegun Vaquero, Goldie Nejat, and J. Christopher Beck. Robots in retirement homes: Applying off-the-shelf planning and scheduling to a team of assistive robots. *J. Artif. Intell. Res.*, 58:523–590, 2017. URL: <https://doi.org/10.1613/jair.5306>, doi:10.1613/JAIR.5306.
- [498] Tony T. Tran, Tiago Stegun Vaquero, Goldie Nejat, and J. Christopher Beck. Robots in retirement homes: Applying off-the-shelf planning and scheduling to a team of assistive robots (extended abstract). In Carles Sierra, editor, *Proceedings of the Twenty-Sixth International Joint Conference on Artificial Intelligence, IJCAI 2017, Melbourne, Australia, August 19-25, 2017*, pages 5080–5084. ijcai.org, 2017. URL: <https://doi.org/10.24963/ijcai.2017/726>, doi:10.24963/IJCAI.2017/726.
- [499] Tony T. Tran, Zhihui Wang, Minh Do, Eleanor Gilbert Rieffel, Jeremy Frank, Bryan O’Gorman, Davide Venturelli, and J. Christopher Beck. Explorations of quantum-classical approaches to scheduling a mars lander activity problem. In Daniele Magazzeni, Scott Sanner, and Sylvie Thiébaux, editors, *Planning for Hybrid Systems, Papers from the 2016 AAAI Workshop, Phoenix, Arizona, USA, February 13, 2016*, volume WS-16-12 of *AAAI Technical Report*. AAAI Press, 2016. URL: <http://www.aaai.org/ocs/index.php/WS/AAAIW16/paper/view/12664>.
- [500] Mariem Trojet, Fehmi H’Mida, and Pierre Lopez. Project scheduling under resource constraints: Application of the cumulative global constraint in a decision support framework. *Comput. Ind. Eng.*, 61(2):357–363, 2011. URL: <https://doi.org/10.1016/j.cie.2010.08.014>, doi:10.1016/J.CIE.2010.08.014.
- [501] Edward P. K. Tsang. Constraint based scheduling: Applying constraint programming to scheduling problems. *J. Sched.*, 6(4):413–414, 2003. doi:10.1023/A:1024016929283.
- [502] Carmelo Del Valle, Antonio A. Márquez, Rafael M. Gasca, and Miguel Toro. On selecting and scheduling assembly plans using constraint programming. In Vasile Palade, Robert J. Howlett, and Lakhmi C. Jain, editors, *Knowledge-Based Intelligent Information and Engineering Systems, 7th International Conference, KES 2003, Oxford, UK, September 3-5, 2003, Proceedings, Part II*, volume 2774 of *Lecture Notes in Computer Science*, pages 1329–1336. Springer, 2003. doi:10.1007/978-3-540-45226-3\\_180.
- [503] J. M. van den Akker, Guido Diepen, and J. A. Hoogeveen. A column generation based destructive lower bound for resource constrained project scheduling problems. In Pascal Van Hentenryck and Laurence A. Wolsey, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 4th International Conference, CPAIOR 2007, Brussels, Belgium, May 23-26, 2007, Proceedings*, volume 4510 of *Lecture Notes in Computer Science*, pages 376–390. Springer, 2007. doi:10.1007/978-3-540-72397-4\\_27.
- [504] Pim van den Bogaerdt and Mathijs de Weerdt. Lower bounds for uniform machine scheduling using decision diagrams. In Louis-Martin Rousseau and Kostas Stergiou, editors, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 16th International Conference, CPAIOR 2019, Thessaloniki, Greece, June 4-7, 2019, Proceedings*, volume 11494 of *Lecture Notes in Computer Science*, pages 565–580. Springer, 2019. doi:10.1007/978-3-030-19212-9\\_38.
- [505] Roman van der Krogt, James Little, Kenneth Pulliam, Sue Hanhilammi, and Yue Jin. Scheduling for cellular manufacturing. In Christian Bessiere, editor, *Principles and Practice of Constraint Programming - CP 2007, 13th International Conference, CP 2007, Providence, RI, USA, September 23-27, 2007, Proceedings*, volume 4741 of *Lecture Notes in Computer Science*, pages 105–117. Springer, 2007. doi:10.1007/978-3-540-74970-7\\_10.
- [506] Willem Jan van Hoeve, Carla P. Gomes, Bart Selman, and Michele Lombardi. Optimal multi-agent scheduling with constraint programming. In *Proceedings of the Twenty-Second AAAI Conference on Artificial Intelligence, July 22-26, 2007, Vancouver, British Columbia, Canada*, pages 1813–1818. AAAI Press, 2007. URL: <http://www.aaai.org/Library/AAAI/2007/aaai07-291.php>.

- [507] József Váncza and András Márkus. A constraint engine for manufacturing process planning. In Toby Walsh, editor, *Principles and Practice of Constraint Programming - CP 2001, 7th International Conference, CP 2001, Paphos, Cyprus, November 26 - December 1, 2001, Proceedings*, volume 2239 of *Lecture Notes in Computer Science*, pages 745–759. Springer, 2001. doi:10.1007/3-540-45578-7\_60.
- [508] Gérard Verfaillie and Michel Lemaître. Selecting and scheduling observations for agile satellites: Some lessons from the constraint reasoning community point of view. In Toby Walsh, editor, *Principles and Practice of Constraint Programming - CP 2001, 7th International Conference, CP 2001, Paphos, Cyprus, November 26 - December 1, 2001, Proceedings*, volume 2239 of *Lecture Notes in Computer Science*, pages 670–684. Springer, 2001. doi:10.1007/3-540-45578-7\_55.
- [509] Petr Vilím. Batch processing with sequence dependent setup times. In Pascal Van Hentenryck, editor, *Principles and Practice of Constraint Programming - CP 2002, 8th International Conference, CP 2002, Ithaca, NY, USA, September 9-13, 2002, Proceedings*, volume 2470 of *Lecture Notes in Computer Science*, page 764. Springer, 2002. doi:10.1007/3-540-46135-3\_62.
- [510] Petr Vilím. Computing explanations for global scheduling constraints. In Francesca Rossi, editor, *Principles and Practice of Constraint Programming - CP 2003, 9th International Conference, CP 2003, Kinsale, Ireland, September 29 - October 3, 2003, Proceedings*, volume 2833 of *Lecture Notes in Computer Science*, page 1000. Springer, 2003. doi:10.1007/978-3-540-45193-8\_124.
- [511] Petr Vilím.  $O(n \log n)$  filtering algorithms for unary resource constraint. In Jean-Charles Régin and Michel Rueher, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, First International Conference, CPAIOR 2004, Nice, France, April 20-22, 2004, Proceedings*, volume 3011 of *Lecture Notes in Computer Science*, pages 335–347. Springer, 2004. doi:10.1007/978-3-540-24664-0\_23.
- [512] Petr Vilím. Computing explanations for the unary resource constraint. In Roman Barták and Michela Milano, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, Second International Conference, CPAIOR 2005, Prague, Czech Republic, May 30 - June 1, 2005, Proceedings*, volume 3524 of *Lecture Notes in Computer Science*, pages 396–409. Springer, 2005. doi:10.1007/11493853\_29.
- [513] Petr Vilím. Edge finding filtering algorithm for discrete cumulative resources in  $O(kn \log n)$ . In Ian P. Gent, editor, *Principles and Practice of Constraint Programming - CP 2009, 15th International Conference, CP 2009, Lisbon, Portugal, September 20-24, 2009, Proceedings*, volume 5732 of *Lecture Notes in Computer Science*, pages 802–816. Springer, 2009. doi:10.1007/978-3-642-04244-7\_62.
- [514] Petr Vilím. Max energy filtering algorithm for discrete cumulative resources. In Willem Jan van Hoeve and John N. Hooker, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 6th International Conference, CPAIOR 2009, Pittsburgh, PA, USA, May 27-31, 2009, Proceedings*, volume 5547 of *Lecture Notes in Computer Science*, pages 294–308. Springer, 2009. doi:10.1007/978-3-642-01929-6\_22.
- [515] Petr Vilím. Timetable edge finding filtering algorithm for discrete cumulative resources. In Tobias Achterberg and J. Christopher Beck, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems - 8th International Conference, CPAIOR 2011, Berlin, Germany, May 23-27, 2011, Proceedings*, volume 6697 of *Lecture Notes in Computer Science*, pages 230–245. Springer, 2011. doi:10.1007/978-3-642-21311-3\_22.
- [516] Petr Vilím, Roman Barták, and Ondrej Cepek. Unary resource constraint with optional activities. In Mark Wallace, editor, *Principles and Practice of Constraint Programming - CP 2004, 10th International Conference, CP 2004, Toronto, Canada, September 27 - October 1, 2004, Proceedings*, volume 3258 of *Lecture Notes in Computer Science*, pages 62–76. Springer, 2004. doi:10.1007/978-3-540-30201-8\_8.
- [517] Petr Vilím, Roman Barták, and Ondrej Cepek. Extension of  $O(n \log n)$  filtering algorithms for the unary resource constraint to optional activities. *Constraints An Int. J.*, 10(4):403–425, 2005. URL: <https://doi.org/10.1007/s10601-005-2814-0>, doi:10.1007/S10601-005-2814-0.

- [518] Petr Vilím, Philippe Laborie, and Paul Shaw. Failure-directed search for constraint-based scheduling. In Laurent Michel, editor, *Integration of AI and OR Techniques in Constraint Programming - 12th International Conference, CPAIOR 2015, Barcelona, Spain, May 18-22, 2015, Proceedings*, volume 9075 of *Lecture Notes in Computer Science*, pages 437–453. Springer, 2015. doi:10.1007/978-3-319-18008-3\\_30.
- [519] Karen Villaverde and Enrico Pontelli. An investigation of scheduling in distributed constraint logic programming. In David A. Bader and Ashfaq A. Khokhar, editors, *Proceedings of the ISCA 17th International Conference on Parallel and Distributed Computing Systems, September 15-17, 2004, The Canterbury Hotel, San Francisco, California, USA*, pages 98–103. ISCA, 2004.
- [520] Marek Vlk, Zdenek Hanzálek, and Siyu Tang. Constraint programming approaches to joint routing and scheduling in time-sensitive networks. *Comput. Ind. Eng.*, 157:107317, 2021. URL: <https://doi.org/10.1016/j.cie.2021.107317>, doi:10.1016/J.CIE.2021.107317.
- [521] Mark Wallace. Applying constraints for scheduling. In Brian Mayoh, Enn Tyugu, and Jaan Penjam, editors, *Constraint Programming*, pages 153–171, Berlin, Heidelberg, 1994. Springer Berlin Heidelberg.
- [522] Mark Wallace. Practical applications of constraint programming. *Constraints An Int. J.*, 1(1/2):139–168, 1996. doi:10.1007/BF00143881.
- [523] Mark Wallace and Neil Yorke-Smith. A new constraint programming model and solving for the cyclic hoist scheduling problem. *Constraints An Int. J.*, 25(3-4):319–337, 2020. URL: <https://doi.org/10.1007/s10601-020-09316-z>, doi:10.1007/S10601-020-09316-Z.
- [524] Ruixin Wang and Nicolas Barnier. Global propagation of transition cost for fixed job scheduling. In Giuseppe De Giacomo, Alejandro Catalá, Bistra Dilkina, Michela Milano, Senén Barro, Alberto Bugarín, and Jérôme Lang, editors, *ECAI 2020 - 24th European Conference on Artificial Intelligence, 29 August-8 September 2020, Santiago de Compostela, Spain, August 29 - September 8, 2020 - Including 10th Conference on Prestigious Applications of Artificial Intelligence (PAIS 2020)*, volume 325 of *Frontiers in Artificial Intelligence and Applications*, pages 363–370. IOS Press, 2020. doi:10.3233/FAIA200114.
- [525] Ruixin Wang and Nicolas Barnier. Dynamic all-different and maximal cliques constraints for fixed job scheduling. In *35th IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2023, Atlanta, GA, USA, November 6-8, 2023*, pages 385–392. IEEE, 2023. doi:10.1109/ICTAI59109.2023.00062.
- [526] Tao Wang, Nadine Meskens, and David Duvivier. Scheduling operating theatres: Mixed integer programming vs. constraint programming. *Eur. J. Oper. Res.*, 247(2):401–413, 2015. URL: <https://doi.org/10.1016/j.ejor.2015.06.008>, doi:10.1016/J.EJOR.2015.06.008.
- [527] Ezra Wari and Weihang Zhu. A constraint programming model for food processing industry: a case for an ice cream processing facility. *International Journal of Production Research*, 57(21):6648–6664, February 2019. URL: <http://dx.doi.org/10.1080/00207543.2019.1571250>, doi:10.1080/00207543.2019.1571250.
- [528] Jean-Paul Watson and J. Christopher Beck. A hybrid constraint programming / local search approach to the job-shop scheduling problem. In Laurent Perron and Michael A. Trick, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 5th International Conference, CPAIOR 2008, Paris, France, May 20-23, 2008, Proceedings*, volume 5015 of *Lecture Notes in Computer Science*, pages 263–277. Springer, 2008. doi:10.1007/978-3-540-68155-7\\_21.
- [529] Johan Wessén, Mats Carlsson, and Christian Schulte. Scheduling of dual-arm multi-tool assembly robots and workspace layout optimization. In Emmanuel Hebrard and Nysret Musliu, editors, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 17th International Conference, CPAIOR 2020, Vienna, Austria, September 21-24, 2020, Proceedings*, volume 12296 of *Lecture Notes in Computer Science*, pages 511–520. Springer, 2020. doi:10.1007/978-3-030-58942-4\\_33.
- [530] Jaroslaw Wikarek and Pawel Sitek. A constraint-based declarative programming framework for scheduling and resource allocation problems. *Vietnam. J. Comput. Sci.*, 6(1):69–90, 2019. doi:10.1142/S2196888819500027.

- [531] Felix Winter, Sebastian Meiswinkel, Nysret Musliu, and Daniel Walkiewicz. Modeling and solving parallel machine scheduling with contamination constraints in the agricultural industry. In Christine Solnon, editor, *28th International Conference on Principles and Practice of Constraint Programming, CP 2022, July 31 to August 8, 2022, Haifa, Israel*, volume 235 of *LIPICs*, pages 41:1–41:18. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022. URL: <https://doi.org/10.4230/LIPICs.CP.2022.41>, doi:10.4230/LIPICs.CP.2022.41.
- [532] Armin Wolf. Pruning while sweeping over task intervals. In Francesca Rossi, editor, *Principles and Practice of Constraint Programming - CP 2003, 9th International Conference, CP 2003, Kinsale, Ireland, September 29 - October 3, 2003, Proceedings*, volume 2833 of *Lecture Notes in Computer Science*, pages 739–753. Springer, 2003. doi:10.1007/978-3-540-45193-8\_50.
- [533] Armin Wolf and Gunnar Schrader.  $O(n \log n)$  overload checking for the cumulative constraint and its application. In Masanobu Umeda, Armin Wolf, Oskar Bartenstein, Ulrich Geske, Dietmar Seipel, and Osamu Takata, editors, *Declarative Programming for Knowledge Management, 16th International Conference on Applications of Declarative Programming and Knowledge Management, INAP 2005, Fukuoka, Japan, October 22-24, 2005, Revised Selected Papers*, volume 4369 of *Lecture Notes in Computer Science*, pages 88–101. Springer, 2005. doi:10.1007/11963578\_8.
- [534] Christophe Wolinski, Krzysztof Kuchcinski, and Maya B. Gokhale. A constraints programming approach to communication scheduling on socp architectures. In *2004 Euromicro Symposium on Digital Systems Design (DSD 2004), Architectures, Methods and Tools, 31 August - 3 September 2004, Rennes, France*, pages 308–315. IEEE Computer Society, 2004. doi:10.1109/DSD.2004.1333291.
- [535] Christine Wei Wu, Kenneth N. Brown, and J. Christopher Beck. Scheduling with uncertain start dates. In Peter van Beek, editor, *Principles and Practice of Constraint Programming - CP 2005, 11th International Conference, CP 2005, Sitges, Spain, October 1-5, 2005, Proceedings*, volume 3709 of *Lecture Notes in Computer Science*, page 872. Springer, 2005. doi:10.1007/11564751\_110.
- [536] Christine Wei Wu, Kenneth N. Brown, and J. Christopher Beck. Scheduling with uncertain durations: Modeling beta-robust scheduling with constraints. *Comput. Oper. Res.*, 36(8):2348–2356, 2009. URL: <https://doi.org/10.1016/j.cor.2008.08.008>, doi:10.1016/J.COR.2008.08.008.
- [537] Moli Yang, Andreas Schutt, and Peter J. Stuckey. Time table edge finding with energy variables. In Louis-Martin Rousseau and Kostas Stergiou, editors, *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 16th International Conference, CPAIOR 2019, Thessaloniki, Greece, June 4-7, 2019, Proceedings*, volume 11494 of *Lecture Notes in Computer Science*, pages 633–642. Springer, 2019. doi:10.1007/978-3-030-19212-9\_42.
- [538] Maryam Younespour, Arezoo Atighehchian, Kamran Kianfar, and Ehsan Tarkesh Esfahani. Using mixed integer programming and constraint programming for operating rooms scheduling with modified block strategy. *Operations research for health care*, 23:100220, 2019. URL: <https://api.semanticscholar.org/CorpusID:208103305>.
- [539] Kenneth D. Young, Thibaut Feydy, and Andreas Schutt. Constraint programming applied to the multi-skill project scheduling problem. In J. Christopher Beck, editor, *Principles and Practice of Constraint Programming - 23rd International Conference, CP 2017, Melbourne, VIC, Australia, August 28 - September 1, 2017, Proceedings*, volume 10416 of *Lecture Notes in Computer Science*, pages 308–317. Springer, 2017. doi:10.1007/978-3-319-66158-2\_20.
- [540] Pinar Yunusoglu and Seyda Topaloglu Yildiz. Constraint programming approach for multi-resource-constrained unrelated parallel machine scheduling problem with sequence-dependent setup times. *Int. J. Prod. Res.*, 60(7):2212–2229, 2022. doi:10.1080/00207543.2021.1885068.
- [541] Francisco Yuraszcek, Gonzalo Mejía, and Dario Canut-de-Bon. A competitive constraint programming approach for the group shop scheduling problem. In Elhadi M. Shakshuki and Ansar-Ul-Haque Yasar, editors, *The 14th International Conference on Ambient Systems, Networks and Technologies (ANT 2023) / The 6th International Conference on Emerging Data and Industry 4.0 (EDI40 2023) / Affiliated Workshops, March 15-17, 2023, Leuven, Belgium*, volume 220 of *Procedia Computer Science*, pages 946–951. Elsevier, 2023. URL: <https://doi.org/10.1016/j.procs.2023.03.130>, doi:10.1016/J.PROCS.2023.03.130.

- [542] Francisco Yuraszeck, Gonzalo Mejía, Jordi Pereira, and Mariona Vilà. A novel constraint programming decomposition approach for the total flow time fixed group shop scheduling problem. *Mathematics*, 2022. URL: <https://api.semanticscholar.org/CorpusID:246320449>.
- [543] Francisco Yuraszeck, Elizabeth Montero, Dario Canut-de-Bon, Nicolás Cuneo, and Maximiliano Rojel. A constraint programming formulation of the multi-mode resource-constrained project scheduling problem for the flexible job shop scheduling problem. *IEEE Access*, 11:144928–144938, 2023. doi:10.1109/ACCESS.2023.3345793.
- [544] M. H. Fazel Zarandi, H. Khorshidian, and Mohsen Akbarpour Shirazi. A constraint programming model for the scheduling of JIT cross-docking systems with preemption. *J. Intell. Manuf.*, 27(2):297–313, 2016. URL: <https://doi.org/10.1007/s10845-013-0860-9>, doi:10.1007/S10845-013-0860-9.
- [545] Mohammad Hossein Fazel Zarandi, Ali Akbar Sadat Asl, Shahabeddin Sotudian, and Oscar Castillo. A state of the art review of intelligent scheduling. *Artif. Intell. Rev.*, 53(1):501–593, 2020. URL: <https://doi.org/10.1007/s10462-018-9667-6>, doi:10.1007/S10462-018-9667-6.
- [546] Luis Zeballos and Gabriela P. Henning. A constraint programming approach to FMS scheduling. consideration of storage and transportation resources. *Inteligencia Artif.*, 9(26):39–48, 2005. URL: <http://journal.iberamia.org/index.php/ia/article/view/452/article%20%281%29.pdf>.
- [547] Luis Zeballos, Oscar Quiroga, and Gabriela P. Henning. A constraint programming model for the scheduling of flexible manufacturing systems with machine and tool limitations. *Eng. Appl. Artif. Intell.*, 23(2):229–248, 2010. URL: <https://doi.org/10.1016/j.engappai.2009.07.002>, doi:10.1016/J.ENGAPPAI.2009.07.002.
- [548] Haotian Zhang, Yingjun Ji, Ziyang Zhao, and Shixin Liu. Constraint programming for modeling and solving a hybrid flow shop scheduling problem. In *IEEE International Conference on Networking, Sensing and Control, ICNSC 2022, Shanghai, China, December 15-18, 2022*, pages 1–6. IEEE, 2022. doi:10.1109/ICNSC55942.2022.10004154.
- [549] Jiachen Zhang, Giovanni Lo Bianco, and J. Christopher Beck. Solving job-shop scheduling problems with qubo-based specialized hardware. In Akshat Kumar, Sylvie Thiébaux, Pradeep Varakantham, and William Yeoh, editors, *Proceedings of the Thirty-Second International Conference on Automated Planning and Scheduling, ICAPS 2022, Singapore (virtual), June 13-24, 2022*, pages 404–412. AAAI Press, 2022. URL: <https://ojs.aaai.org/index.php/ICAPS/article/view/19826>.
- [550] Luping Zhang, Chunxia Yu, and T. N. Wong. A graph-based constraint programming approach for the integrated process planning and scheduling problem. *Comput. Oper. Res.*, 131:105282, 2021. URL: <https://doi.org/10.1016/j.cor.2021.105282>, doi:10.1016/J.COR.2021.105282.
- [551] Sicheng Zhang and Shouyang Wang. Flexible assembly job-shop scheduling with sequence-dependent setup times and part sharing in a dynamic environment: Constraint programming model, mixed-integer programming model, and dispatching rules. *IEEE Trans. Engineering Management*, 65(3):487–504, 2018. doi:10.1109/TEM.2017.2785774.
- [552] Xujun Zhang, Zhimin Lv, and Xiaoqing Song. Model and solution for hot strip rolling scheduling problem based on constraint programming method. In *12th IEEE International Conference on Computer and Information Technology, CIT 2012, Chengdu, Sichuan, China, October 27-29, 2012*, pages 412–415. IEEE Computer Society, 2012. doi:10.1109/CIT.2012.96.
- [553] Jianyang Zhou. A constraint program for solving the job-shop problem. In Eugene C. Freuder, editor, *Proceedings of the Second International Conference on Principles and Practice of Constraint Programming, Cambridge, Massachusetts, USA, August 19-22, 1996*, volume 1118 of *Lecture Notes in Computer Science*, pages 510–524. Springer, 1996. doi:10.1007/3-540-61551-2\_97.
- [554] Jianyang Zhou. A permutation-based approach for solving the job-shop problem. *Constraints An Int. J.*, 2(2):185–213, 1997. doi:10.1023/A:1009757726572.



- [555] Jinlian Zhou, Ying Guo, and Guipeng Li. On complex hybrid flexible flowshop scheduling problems based on constraint programming. In *12th International Conference on Fuzzy Systems and Knowledge Discovery, FSKD 2015, Zhangjiajie, China, August 15-17, 2015*, pages 909–913. IEEE, 2015. doi:10.1109/FSKD.2015.7382064.
- [556] Kenny Qili Zhu and Andrew E. Santosa. A meeting scheduling system based on open constraint programming. In Anne Banks Pidduck, John Mylopoulos, Carson C. Woo, and M. Tamer Özsu, editors, *Advanced Information Systems Engineering, 14th International Conference, CAiSE 2002, Toronto, Canada, May 27-31, 2002, Proceedings*, volume 2348 of *Lecture Notes in Computer Science*, pages 792–796. Springer, 2002. doi:10.1007/3-540-47961-9\_69.
- [557] Minhaz F. Zibran and Chanchal K. Roy. Conflict-aware optimal scheduling of code clone refactoring: A constraint programming approach. In *The 19th IEEE International Conference on Program Comprehension, ICPC 2011, Kingston, ON, Canada, June 22-24, 2011*, pages 266–269. IEEE Computer Society, 2011. doi:10.1109/ICPC.2011.45.
- [558] Minhaz F. Zibran and Chanchal K. Roy. A constraint programming approach to conflict-aware optimal scheduling of prioritized code clone refactoring. In *11th IEEE Working Conference on Source Code Analysis and Manipulation, SCAM 2011, Williamsburg, VA, USA, September 25-26, 2011*, pages 105–114. IEEE Computer Society, 2011. doi:10.1109/SCAM.2011.21.
- [559] Xin Zou and Lihui Zhang. A constraint programming approach for scheduling repetitive projects with atypical activities considering soft logic. *Automation in Construction*, 109:102990, 2020. URL: <https://api.semanticscholar.org/CorpusID:208840808>.
- [560] Şeyda Gür, Tamer Eren, and Hacı Mehmet Alakaş. Surgical operation scheduling with goal programming and constraint programming: A case study. *Mathematics*, 2019. URL: <https://api.semanticscholar.org/CorpusID:88492001>.

## A Papers and Articles Missing a Local Copy

This section lists all papers and articles for which we were not able to locate an electronic copy that we could download to our system. This might be because the work is behind a paywall for which we do not have access, or since the paper only exists in hardcopy, for works from the start of the period covered. As in either case we are not able to extract useful information from the work, either automatically, or manually, without the actual text itself, these gaps should be closed where possible.

Table 19: PAPER without Local Copy

| Key              | URL              | Authors  | Title  | Year | Conference /Journal         | Cite  |
|------------------|------------------|--|--|------|-----------------------------|-------|
| ArtiguesHQT21    | ArtiguesHQT21    | C. Artigues, E. Hebrard, A. Quilliot, H. Toussaint   | Multi-Mode RCPSP with Safety Margin Maximization: Models and Algorithms  | 2021 | ICORES 2021                 | [22]  |
| FriedrichFMRST14 | FriedrichFMRST14 | G. Friedrich, M. Frühstück, V. Mersheeva, A. Ryabokon, M. Sander, A. Starzacher, E. Teppan | Representing Production Scheduling with Constraint Answer Set Programming  | 2014 | GOR 2014                    | [179] |
| LouieVNB14       | LouieVNB14       | Wing-Yue Geoffrey Louie, Tiago Stegun Vaquero, G. Nejat, J. Christopher Beck               | An autonomous assistive robot for planning, scheduling and facilitating multi-user activities                                    | 2014 | ICRA 2014                   | [342] |
| VillaverdeP04    | VillaverdeP04    | K. Villaverde, E. Pontelli   | An Investigation of Scheduling in Distributed Constraint Logic Programming   | 2004 | ISCA 2004                   | [519] |
| BoucherBVBL97    | BoucherBVBL97    | E. Boucher, A. Bachelu, C. Varnier, P. Baptiste, B. Legeard                                | Multi-criteria Comparison Between Algorithmic, Constraint Logic and Specific Constraint Programming on a Real Scheduling Problem | 1997 | PACT 1997                   | [103] |
| PapeB97          | PapeB97          | Claude Le Pape, P. Baptiste  | A Constraint Programming Library for Preemptive and Non-Preemptive Scheduling  | 1997 | PACT 1997                   | [403] |
| JourdanFRD94     | JourdanFRD94     | J. Jourdan, F. Fages, D. Rozzonelli, A. Demeure  | Data Alignment and Task Scheduling On Parallel Machines Using Concurrent Constraint Model-based Programming                      | 1994 | ILPS 1994                   | [266] |
| Wallace94        | Wallace94        | M. Wallace   | Applying Constraints for Scheduling  | 1994 | Constraint Programming 1994 | [521] |

Table 20: ARTICLE without Local Copy

| Key                 | URL                 | Authors  | Title   | Year | Conference /Journal                          | Cite  |
|---------------------|---------------------|--|---|------|--|-------|
| AbreuPNF23          | AbreuPNF23          | Levi R. Abreu, Bruno A. Prata, Marcelo S. Nagano, Jose M. Framinan     | A constraint programming-based iterated greedy algorithm for the open shop with sequence-dependent processing times and makespan minimization | 2023 | Computers Operations Research                | [3]   |
| Fatemi-AnarakiMFN22 | Fatemi-AnarakiMFN22 | S. Fatemi-Anaraki, R. Tavakkoli-Moghaddam, M. Foumani, B. Vahedi-Nouri | Scheduling of Multi-Robot Job Shop Systems in Dynamic Environments: Mixed-Integer Linear Programming and Constraint Programming Approaches    | 2022 | Omega  | [173] |
| ShiYXQ22            | ShiYXQ22            | G. Shi, Z. Yang, Y. Xu, Y. Quan  | Solving the integrated process planning and scheduling problem using an enhanced constraint programming-based approach                        | 2022 | Int. J. Prod. Res.                           | [453] |
| AlizdehS20          | AlizdehS20          | S. Alizdeh, S. Saeidi  | Fuzzy project scheduling with critical path including risk and resource constraints using linear programming                                  | 2020 | Int. J. Adv. Intell. Paradigms               | [12]  |
| CauwelaertDS20      | CauwelaertDS20      | Sasha Van Cauwelaert, C. Dejemeppe, P. Schaus                          | An Efficient Filtering Algorithm for the Unary Resource Constraint with Transition Times and Optional Activities                              | 2020 | Journal of Scheduling                        | [123] |
| WariZ19             | WariZ19             | E. Wari, W. Zhu  | A Constraint Programming model for food processing industry: a case for an ice cream processing facility                                      | 2019 | International Journal of Production Research | [527] |
| KreterSSZ18         | KreterSSZ18         | S. Kreter, A. Schutt, Peter J. Stuckey, J. Zimmermann                  | Mixed-integer linear programming and constraint programming formulations for solving resource availability cost problems                      | 2018 | Eur. J. Oper. Res.                           | [300] |
| BlomPS16            | BlomPS16            | Michelle L. Blom, Adrian R. Pearce, Peter J. Stuckey                   | A Decomposition-Based Algorithm for the Scheduling of Open-Pit Networks Over Multiple Time Periods  | 2016 | Manag. Sci.                                  | [88]  |
| HamC16              | HamC16              | Andy M. Ham, E. Cakici   | Flexible job shop scheduling problem with parallel batch processing machines: MIP and CP approaches   | 2016 | Computers Industrial Engineering             | [224] |
| KuB16               | KuB16               | W. Ku, J. Christopher Beck   | Mixed Integer Programming models for job shop scheduling: A computational analysis  | 2016 | Comput. Oper. Res.                           | [301] |

Table 20: ARTICLE without Local Copy

| Key            | URL            | Authors   | Title   | Year | Conference /Journal                      | Cite  |
|----------------|----------------|---|---|------|--|-------|
| TranAB16       | TranAB16       | Tony T. Tran, A. Araujo, J. Christopher Beck                            | Decomposition Methods for the Parallel Machine Scheduling Problem with Setups   | 2016 | INFORMS J. Comput.                       | [492] |
| GrimesH15      | GrimesH15      | D. Grimes, E. Hebrard   | Solving Variants of the Job Shop Scheduling Problem Through Conflict-Directed Search  | 2015 | INFORMS J. Comput.                       | [212] |
| BlomBPS14      | BlomBPS14      | Michelle L. Blom, Christina N. Burt, Adrian R. Pearce, Peter J. Stuckey | A Decomposition-Based Heuristic for Collaborative Scheduling in a Network of Open-Pit Mines                                   | 2014 | INFORMS J. Comput.                       | [87]  |
| TerekhovDOB12  | TerekhovDOB12  | D. Terekhov, Mustafa K. Dogru, U. Özen, J. Christopher Beck             | Solving two-machine assembly scheduling problems with inventory constraints   | 2012 | Comput. Ind. Eng.                        | [479] |
| BandaSC11      | BandaSC11      | Maria Garcia de la Banda, Peter J. Stuckey, G. Chu                      | Solving Talent Scheduling with Dynamic Programming  | 2011 | INFORMS J. Comput.                       | [144] |
| HartmannB10    | HartmannB10    | S. Hartmann, D. Briskorn  | A survey of variants and extensions of the resource-constrained project scheduling problem                                    | 2010 | European Journal of Operational Research | [227] |
| Jans09         | Jans09         | Jans, Raf   | Solving Lot-Sizing Problems on Parallel Identical Machines Using Symmetry-Breaking Constraints                                | 2009 | INFORMS Journal on Computing             | [264] |
| WuBB09         | WuBB09         | Christine Wei Wu, Kenneth N. Brown, J. Christopher Beck                 | Scheduling with uncertain durations: Modeling beta-robust scheduling with constraints   | 2009 | Comput. Oper. Res.                       | [536] |
| MercierH08     | MercierH08     | L. Mercier, Pascal Van Hentenryck                                       | Edge Finding for Cumulative Scheduling  | 2008 | INFORMS Journal on Computing             | [361] |
| Hooker07       | Hooker07       | John N. Hooker  | Planning and Scheduling by Logic-Based Benders Decomposition  | 2007 | Operations Research                      | [253] |
| HookerO03      | HookerO03      | John N. Hooker, G. Ottosson   | Logic-based Benders decomposition   | 2003 | Mathematical Programming                 | [256] |
| HarjunkoskiG02 | HarjunkoskiG02 | I. Harjunkoski, Ignacio E. Grossmann                                    | Decomposition techniques for multistage scheduling problems using mixed-integer and constraint programming methods            | 2002 | Computers Chemical Engineering           | [226] |
| JainG01        | JainG01        | V. Jain, Ignacio E. Grossmann   | Algorithms for Hybrid MILP/CP Models for a Class of Optimization Problems   | 2001 | INFORMS Journal on Computing             | [263] |
| TorresL00      | TorresL00      | P. Torres, P. Lopez   | On Not-First/Not-Last conditions in disjunctive scheduling  | 2000 | European Journal of Operational Research | [489] |
| BruckerDMNP99  | BruckerDMNP99  | P. Brucker, A. Drexl, R. Möhring, K. Neumann, E. Pesch                  | Resource-constrained project scheduling: Notation, classification, models, and methods  | 1999 | European Journal of Operational Research | [109] |
| KolischS97     | KolischS97     | R. Kolisch, A. Sprecher   | PSPLIB - A project scheduling problem library   | 1997 | European Journal of Operational Research | [286] |
| CarlierP94     | CarlierP94     | J. Carlier, E. Pinson   | Adjustment of heads and tails for the job-shop problem  | 1994 | European Journal of Operational Research | [119] |
| Pape94         | Pape94         | Claude Le Pape  | Implementation of resource constraints in ILOG SCHEDULE: a library for the development of constraint-based scheduling systems | 1994 | Intelligent Systems Engineering          | [402] |
| Taillard93     | Taillard93     | E. Taillard   | Benchmarks for basic scheduling problems  | 1993 | European Journal of Operational Research | [471] |
| Tay92          | Tay92          | David B. H. Tay   | COPS: A Constraint Programming Approach to Resource-Limited Project Scheduling  | 1992 | Comput. J.                               | [477] |
| ApplegateC91   | ApplegateC91   | D. Applegate, W. Cook   | A Computational Study of the Job-Shop Scheduling Problem  | 1991 | ORSA Journal on Computing                | [16]  |
| DechterMP91    | DechterMP91    | R. Dechter, I. Meiri, J. Pearl  | Temporal constraint networks  | 1991 | Artificial Intelligence                  | [145] |
| CarlierP90     | CarlierP90     | J. Carlier, E. Pinson   | A practical use of Jackson's preemptive schedule for solving the job shop problem   | 1990 | Annals of Operations Research            | [118] |
| CarlierP89     | CarlierP89     | J. Carlier, E. Pinson   | An Algorithm for Solving the Job-Shop Problem   | 1989 | Management Science                       | [117] |
| AdamsBZ88      | AdamsBZ88      | J. Adams, E. Balas, D. Zawack   | The Shifting Bottleneck Procedure for Job Shop Scheduling   | 1988 | Management Science                       | [6]   |
| Benders62      | Benders62      | Jacques F. Benders  | Partitioning procedures for solving mixed-variables programming problems  | 1962 | Numerische Mathematik                    | [74]  |

## B Papers and Articles Without Recognized Concepts

This section lists papers and articles for which we have a pdf local copy, but where we were not able to extract any of the defined concepts. This can basically have two reasons. We either have included a paper which is not at all related to scheduling, so that none of the defined concepts occur in the paper. A more likely cause is that the pdf file is a scanned document for which optical character recognition was not run or not successful, so that the pdf consists of a series of bitmap images. In that case, pdfgrep is unable to find any text in the document, and no matches for concepts are found. It may be useful to check the pdf files to see if that is the case.

Table 21: PAPER without Concepts

| Key          | Local Copy | Authors                             | Title   | Year | Conference /Journal | Cite | Pages |
|--------------|------------|-------------------------------------|---|------|---------------------|------|-------|
| BaptisteLV92 | Yes        | P. Baptiste, B. Legeard, C. Varnier | Hoist scheduling problem: an approach based on constraint logic programming | 1992 | ICRA 1992           | [40] | 6     |

Table 22: ARTICLE without Concepts

| Key         | Local Copy | Authors  | Title  | Year | Conference /Journal | Cite  | Pages |
|-------------|------------|--|--|------|---------------------|-------|-------|
| KorbaaYG00  | Yes        | O. Korbaa, P. Yim, J. Gentina                    | Solving Transient Scheduling Problems with Constraint Programming  | 2000 | Eur. J. Control     | [288] | 10    |
| LopezAKYG00 | Yes        | P. Lopez, H. Alla, O. Korbaa, P. Yim, J. Gentina | Discussion on: 'Solving Transient Scheduling Problems with Constraint Programming' by O. Korbaa, P. Yim, and J.-C. Gentina | 2000 | Eur. J. Control     | [340] | 4     |

## C Unmatched Concepts

This section lists those concepts for which no matches were found. The most likely cause is a mistake in the regular expression used to find the concept, but it is also possible that some concept simply is not mentioned in any of the documents.

Table 23: Unmatched Concepts

| Type             | Name   | CaseSensitive | Revision |
|------------------|--|---------------|----------|
| Industries       | steel making industry  |               | 0        |
| ApplicationAreas | datacentre   |               | 0        |
| ApplicationAreas | day-ahead market   |               | 0        |
| ApplicationAreas | ship building  |               | 0        |
| ApplicationAreas | vaccine  |               | 0        |
| Classification   | Modified Generalized Assignment Problem                                  |               | 0        |
| Classification   | PP-MS-MMRCPS   | Y             | 1        |
| Classification   | Pre-emptive Job-Shop scheduling Problem                                  |               | 0        |
| Classification   | Resource-constrained Project Scheduling Problem with Discounted Cashflow |               | 0        |
| Classification   | SMSDP  | Y             | 1        |
| Classification   | Steel-making and continuous casting                                      |               | 0        |
| Concepts         | Allen's algebra  |               | 0        |
| Concepts         | make to stock  |               | 1        |

## D Works by Author

### D.1 Works by J. Christopher Beck

Table 24: Works from bibtex (Total 46)

| Key                            | Authors  | Title  | LC  | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|--------------------------------|--|--|-----|-------|------|------------------------|-------|-------------|------------|------|------|
| LuoB22 LuoB22                  | Yiqing L. Luo, J. Christopher Beck   | Packing by Scheduling: Using Constraint Programming to Solve a Complex 2D Cutting Stock Problem                                  | Yes | [346] | 2022 | CPAIOR 2022            | 17    | 0           | 28         | 501  | 634  |
| ZhangBB22 ZhangBB22            | J. Zhang, Giovanni Lo Bianco, J. Christopher Beck  | Solving Job-Shop Scheduling Problems with QUBO-Based Specialized Hardware  | Yes | [549] | 2022 | ICAPS 2022             | 9     | 0           | 0          | 605  | 642  |
| TangB20 TangB20                | Tanya Y. Tang, J. Christopher Beck   | CP and Hybrid Models for Two-Stage Batching and Scheduling   | Yes | [472] | 2020 | CPAIOR 2020            | 16    | 6           | 12         | 565  | 663  |
| TranPZLDB18<br>TranPZLDB18     | Tony T. Tran, M. Padmanabhan, Peter Yun Zhang, H. Li, Douglas G. Down, J. Christopher Beck                       | Multi-stage resource-aware scheduling for data centers with heterogeneous servers  | Yes | [495] | 2018 | J. Sched.              | 17    | 8           | 26         | 1307 | 1429 |
| CohenHB17<br>CohenHB17         | E. Cohen, G. Huang, J. Christopher Beck  | (I Can Get) Satisfaction: Preference-Based Scheduling for Concert-Goers at Multi-venue Music Festivals                           | Yes | [131] | 2017 | SAT 2017               | 17    | 1           | 12         | 381  | 698  |
| TranVNB17<br>TranVNB17         | Tony T. Tran, Tiago Stegun Vaquero, G. Nejat, J. Christopher Beck  | Robots in Retirement Homes: Applying Off-the-Shelf Planning and Scheduling to a Team of Assistive Robots                         | Yes | [497] | 2017 | J. Artif. Intell. Res. | 68    | 12          | 0          | 1308 | 1433 |
| TranVNB17a<br>TranVNB17a       | Tony T. Tran, Tiago Stegun Vaquero, G. Nejat, J. Christopher Beck  | Robots in Retirement Homes: Applying Off-the-Shelf Planning and Scheduling to a Team of Assistive Robots (Extended Abstract)     | Yes | [498] | 2017 | IJCAI 2017             | 5     | 1           | 0          | 579  | 707  |
| BoothNB16 BoothNB16            | Kyle E. C. Booth, G. Nejat, J. Christopher Beck  | A Constraint Programming Approach to Multi-Robot Task Allocation and Scheduling in Retirement Homes                              | Yes | [101] | 2016 | CP 2016                | 17    | 21          | 24         | 364  | 710  |
| KuB16 KuB16                    | W. Ku, J. Christopher Beck   | Mixed Integer Programming models for job shop scheduling: A computational analysis   | No  | [301] | 2016 | Comput. Res. Oper.     | 9     | 119         | 17         | No   | 1440 |
| LuoVLBM16<br>LuoVLBM16         | R. Luo, Richard Anthony Valenzano, Y. Li, J. Christopher Beck, Sheila A. McIlraith                               | Using Metric Temporal Logic to Specify Scheduling Problems   | Yes | [345] | 2016 | KR 2016                | 4     | 0           | 0          | 502  | 719  |
| TranAB16 TranAB16              | Tony T. Tran, A. Araujo, J. Christopher Beck   | Decomposition Methods for the Parallel Machine Scheduling Problem with Setups  | No  | [492] | 2016 | INFORMS J. Comput.     | 13    | 72          | 28         | No   | 1442 |
| TranDRFWOVB16<br>TranDRFWOVB16 | Tony T. Tran, M. Do, Eleanor Gilbert Rieffel, J. Frank, Z. Wang, B. O’Gorman, D. Venturelli, J. Christopher Beck | A Hybrid Quantum-Classical Approach to Solving Scheduling Problems   | Yes | [494] | 2016 | SOCS 2016              | 9     | 3           | 0          | 577  | 724  |
| TranWDRFOVB16<br>TranWDRFOVB16 | Tony T. Tran, Z. Wang, M. Do, Eleanor Gilbert Rieffel, J. Frank, B. O’Gorman, D. Venturelli, J. Christopher Beck | Explorations of Quantum-Classical Approaches to Scheduling a Mars Lander Activity Problem  | Yes | [499] | 2016 | AAAI 2016              | 9     | 0           | 0          | 580  | 725  |
| BajestaniB15<br>BajestaniB15   | Maliheh Aramon Bajestani, J. Christopher Beck  | A two-stage coupled algorithm for an integrated maintenance planning and flowshop scheduling problem with deteriorating machines | Yes | [33]  | 2015 | J. Sched.              | 16    | 17          | 59         | 1161 | 1444 |
| KoschB14 KoschB14              | S. Kosch, J. Christopher Beck  | A New MIP Model for Parallel-Batch Scheduling with Non-identical Job Sizes   | Yes | [289] | 2014 | CPAIOR 2014            | 16    | 4           | 18         | 470  | 756  |
| LouieVNB14<br>LouieVNB14       | Wing-Yue Geoffrey Louie, Tiago Stegun Vaquero, G. Nejat, J. Christopher Beck                                     | An autonomous assistive robot for planning, scheduling and facilitating multi-user activities                                    | No  | [342] | 2014 | ICRA 2014              | 7     | 16          | 9          | No   | 758  |
| TerekhovTDB14<br>TerekhovTDB14 | D. Terekhov, Tony T. Tran, Douglas G. Down, J. Christopher Beck  | Integrating Queueing Theory and Scheduling for Dynamic Scheduling Problems   | Yes | [480] | 2014 | J. Artif. Intell. Res. | 38    | 12          | 0          | 1303 | 1459 |
| BajestaniB13<br>BajestaniB13   | Maliheh Aramon Bajestani, J. Christopher Beck  | Scheduling a Dynamic Aircraft Repair Shop with Limited Repair Resources  | Yes | [32]  | 2013 | J. Artif. Intell. Res. | 36    | 14          | 0          | 1160 | 1461 |
| HeinzKB13 HeinzKB13            | S. Heinz, W. Ku, J. Christopher Beck   | Recent Improvements Using Constraint Integer Programming for Resource Allocation and Scheduling                                  | Yes | [236] | 2013 | CPAIOR 2013            | 16    | 9           | 15         | 441  | 763  |

Table 24: Works from bibtex (Total 46)

| Key                            | Authors   | Title   | LC  | Cite  | Year | Conference /Journal           | Pages | Nr Cites | Nr Refs | b    | c    |
|--------------------------------|---|---|-----|-------|------|-------------------------------|-------|----------|---------|------|------|
| HeinzSB13 HeinzSB13            | S. Heinz, J. Schulz, J. Christopher Beck                        | Using dual presolving reductions to reformulate cumulative constraints                                    | Yes | [239] | 2013 | Constraints An Int. J.        | 36    | 7        | 31      | 1220 | 1463 |
| TranTDB13<br>TranTDB13         | Tony T. Tran, D. Terekhov, Douglas G. Down, J. Christopher Beck | Hybrid Queueing Theory and Scheduling Models for Dynamic Environments with Sequence-Dependent Setup Times | Yes | [496] | 2013 | ICAPS 2013                    | 9     | 0        | 0       | 578  | 770  |
| HeinzB12 HeinzB12              | S. Heinz, J. Christopher Beck                                   | Reconsidering Mixed Integer Programming and MIP-Based Hybrids for Scheduling                              | Yes | [235] | 2012 | CPAIOR 2012                   | 17    | 8        | 21      | 440  | 775  |
| TerekhovDOB12<br>TerekhovDOB12 | D. Terekhov, Mustafa K. Dogru, U. Özen, J. Christopher Beck     | Solving two-machine assembly scheduling problems with inventory constraints                               | No  | [479] | 2012 | Comput. Ind. Eng.             | 15    | 8        | 48      | No   | 1471 |
| TranB12 TranB12                | Tony T. Tran, J. Christopher Beck                               | Logic-based Benders Decomposition for Alternative Resource Scheduling with Sequence Dependent Setups      | Yes | [493] | 2012 | ECAI 2012                     | 6     | 0        | 0       | 576  | 782  |
| BajestaniB11<br>BajestaniB11   | Maliheh Aramon Bajestani, J. Christopher Beck                   | Scheduling an Aircraft Repair Shop  | Yes | [31]  | 2011 | ICAPS 2011                    | 8     | 0        | 0       | 328  | 784  |
| BeckFW11 BeckFW11              | J. Christopher Beck, T. K. Feng, J. Watson                      | Combining Constraint Programming and Local Search for Job-Shop Scheduling                                 | Yes | [55]  | 2011 | INFORMS J. Comput.            | 14    | 43       | 23      | 1170 | 1474 |
| HeckmanB11<br>HeckmanB11       | I. Heckman, J. Christopher Beck                                 | Understanding the behavior of Solution-Guided Search for job-shop scheduling                              | Yes | [234] | 2011 | J. Sched.                     | 20    | 0        | 22      | 1218 | 1478 |
| KovacsB11 KovacsB11            | A. Kovács, J. Christopher Beck                                  | A global constraint for total weighted completion time for unary resources                                | Yes | [292] | 2011 | Constraints An Int. J.        | 24    | 4        | 26      | 1235 | 1480 |
| BidotVLB09<br>BidotVLB09       | J. Bidot, T. Vidal, P. Laborie, J. Christopher Beck             | A theoretic and practical framework for scheduling in a stochastic environment                            | Yes | [82]  | 2009 | J. Sched.                     | 30    | 58       | 20      | 1181 | 1494 |
| WuBB09 WuBB09                  | Christine Wei Wu, Kenneth N. Brown, J. Christopher Beck         | Scheduling with uncertain durations: Modeling beta-robust scheduling with constraints                     | No  | [536] | 2009 | Comput. Oper. Res.            | 9     | 42       | 5       | No   | 1500 |
| KovacsB08 KovacsB08            | A. Kovács, J. Christopher Beck                                  | A global constraint for total weighted completion time for cumulative resources                           | Yes | [291] | 2008 | Eng. Appl. Artif. Intell.     | 7     | 5        | 14      | 1234 | 1503 |
| WatsonB08 WatsonB08            | J. Watson, J. Christopher Beck                                  | A Hybrid Constraint Programming / Local Search Approach to the Job-Shop Scheduling Problem                | Yes | [528] | 2008 | CPAIOR 2008                   | 15    | 14       | 17      | 595  | 825  |
| Beck07 Beck07                  | J. Christopher Beck   | Solution-Guided Multi-Point Constructive Search for Job Shop Scheduling                                   | Yes | [53]  | 2007 | J. Artif. Intell. Res.        | 29    | 34       | 0       | 1167 | 1507 |
| BeckW07 BeckW07                | J. Christopher Beck, N. Wilson                                  | Proactive Algorithms for Job Shop Scheduling with Probabilistic Durations                                 | Yes | [62]  | 2007 | J. Artif. Intell. Res.        | 50    | 27       | 0       | 1172 | 1508 |
| KovacsB07 KovacsB07            | A. Kovács, J. Christopher Beck                                  | A Global Constraint for Total Weighted Completion Time  | Yes | [290] | 2007 | CPAIOR 2007                   | 15    | 2        | 12      | 471  | 832  |
| Beck06 Beck06                  | J. Christopher Beck   | An Empirical Study of Multi-Point Constructive Search for Constraint-Based Scheduling                     | Yes | [52]  | 2006 | ICAPS 2006                    | 10    | 0        | 0       | 338  | 838  |
| BeckW05 BeckW05                | J. Christopher Beck, N. Wilson                                  | Proactive Algorithms for Scheduling with Probabilistic Durations  | Yes | [61]  | 2005 | IJCAI 2005                    | 6     | 0        | 0       | 342  | 847  |
| CarchraeBF05<br>CarchraeBF05   | T. Carchrae, J. Christopher Beck, Eugene C. Freuder             | Methods to Learn Abstract Scheduling Models   | Yes | [116] | 2005 | CP 2005                       | 1     | 0        | 0       | 371  | 848  |
| WuBB05 WuBB05                  | Christine Wei Wu, Kenneth N. Brown, J. Christopher Beck         | Scheduling with Uncertain Start Dates   | Yes | [535] | 2005 | CP 2005                       | 1     | 0        | 0       | 601  | 863  |
| BeckW04 BeckW04                | J. Christopher Beck, N. Wilson                                  | Job Shop Scheduling with Probabilistic Durations  | Yes | [60]  | 2004 | ECAI 2004                     | 5     | 0        | 0       | 341  | 865  |
| BeckPS03 BeckPS03              | J. Christopher Beck, P. Prosser, E. Selensky                    | Vehicle Routing and Job Shop Scheduling: What's the Difference?   | Yes | [58]  | 2003 | ICAPS 2003                    | 10    | 0        | 0       | 340  | 876  |
| BeckR03 BeckR03                | J. Christopher Beck, P. Refalo                                  | A Hybrid Approach to Scheduling with Earliness and Tardiness Costs  | Yes | [59]  | 2003 | Ann. Oper. Res.               | 23    | 29       | 0       | 1171 | 1520 |
| BeckF00 BeckF00                | J. Christopher Beck, Mark S. Fox                                | Dynamic problem structure analysis as a basis for constraint-directed scheduling heuristics               | Yes | [57]  | 2000 | Artif. Intell.                | 51    | 24       | 19      | 1168 | 1534 |
| Beck99 Beck99                  | J. Christopher Beck   | Texture measurements as a basis for heuristic commitment techniques in constraint-directed scheduling     | Yes | [51]  | 1999 | University of Toronto, Canada | 418   | 0        | 0       | 2478 | ??   |
| BeckF98 BeckF98                | J. Christopher Beck, Mark S. Fox                                | A Generic Framework for Constraint-Directed Search and Scheduling   | Yes | [56]  | 1998 | AI Mag.                       | 30    | 0        | 0       | 1169 | 1544 |

Table 24: Works from bibtex (Total 46)

| Key               | Authors  | Title  | LC  | Cite | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b   | c   |
|-------------------|--|--|-----|------|------|------------------------|-------|-------------|------------|-----|-----|
| BeckDF97 BeckDF97 | J. Christopher Beck, Andrew J. Davenport,<br>Mark S. Fox | Five Pitfalls of Empirical Scheduling Research | Yes | [54] | 1997 | CP 1997                | 15    | 3           | 12         | 339 | 906 |

## D.2 Works by Michela Milano

Table 25: Works from bibtex (Total 24)

| Key                                | Authors   | Title  | LC  | Cite  | Year | Conference<br>/Journal                      | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|------------------------------------|---|--|-----|-------|------|---|-------|-------------|------------|------|------|
| BorghesiBLMB18<br>BorghesiBLMB18   | A. Borghesi, A. Bartolini, M. Lombardi, M.<br>Milano, L. Benini | Scheduling-based power capping in high performance<br>computing systems                                  | Yes | [102] | 2018 | Sustain. Comput.<br>Informatics Syst.       | 13    | 11          | 22         | 1186 | 1416 |
| BonfiettiZLM16<br>BonfiettiZLM16   | A. Bonfietti, A. Zanarini, M. Lombardi, M.<br>Milano            | The Multirate Resource Constraint  | Yes | [100] | 2016 | CP 2016                                     | 17    | 0           | 11         | 363  | 709  |
| BridiBLMB16<br>BridiBLMB16         | T. Bridi, A. Bartolini, M. Lombardi, M. Milano,<br>L. Benini    | A Constraint Programming Scheduler for<br>Heterogeneous High-Performance Computing<br>Machines           | Yes | [107] | 2016 | IEEE Trans. Paral-<br>lel Distributed Syst. | 14    | 17          | 22         | 1188 | 1436 |
| BridiLBBM16<br>BridiLBBM16         | T. Bridi, M. Lombardi, A. Bartolini, L. Benini,<br>M. Milano    | DARDIS: Distributed And Randomized DIspatching<br>and Scheduling   | Yes | [108] | 2016 | ECAI 2016                                   | 2     | 0           | 0          | 366  | 711  |
| LombardiBM15<br>LombardiBM15       | M. Lombardi, A. Bonfietti, M. Milano                            | Deterministic Estimation of the Expected Makespan<br>of a POS Under Duration Uncertainty                 | Yes | [331] | 2015 | CP 2015                                     | 16    | 0           | 8          | 496  | 736  |
| BartoliniBBLM14<br>BartoliniBBLM14 | A. Bartolini, A. Borghesi, T. Bridi, M.<br>Lombardi, M. Milano  | Proactive Workload Dispatching on the EURORA<br>Supercomputer  | Yes | [49]  | 2014 | CP 2014                                     | 16    | 12          | 3          | 336  | 745  |
| BonfiettiLBM14<br>BonfiettiLBM14   | A. Bonfietti, M. Lombardi, L. Benini, M. Milano                 | CROSS cyclic resource-constrained scheduling solver  | Yes | [96]  | 2014 | Artif. Intell.                              | 28    | 8           | 15         | 1185 | 1455 |
| BonfiettiLM14<br>BonfiettiLM14     | A. Bonfietti, M. Lombardi, M. Milano                            | Disregarding Duration Uncertainty in Partial Order<br>Schedules? Yes, We Can!                            | Yes | [98]  | 2014 | CPAIOR 2014                                 | 16    | 3           | 12         | 361  | 748  |
| BonfiettiLM13<br>BonfiettiLM13     | A. Bonfietti, M. Lombardi, M. Milano                            | De-Cycling Cyclic Scheduling Problems  | Yes | [97]  | 2013 | ICAPS 2013                                  | 5     | 0           | 0          | 360  | 759  |
| LombardiM13<br>LombardiM13         | M. Lombardi, M. Milano  | A Min-Flow Algorithm for Minimal Critical Set<br>Detection in Resource Constrained Project<br>Scheduling | Yes | [338] | 2013 | ICAPS 2013                                  | 2     | 0           | 0          | 500  | 766  |
| BonfiettiLBM12<br>BonfiettiLBM12   | A. Bonfietti, M. Lombardi, L. Benini, M. Milano                 | Global Cyclic Cumulative Constraint  | Yes | [95]  | 2012 | CPAIOR 2012                                 | 16    | 2           | 11         | 359  | 772  |
| BonfiettiM12<br>BonfiettiM12       | A. Bonfietti, M. Milano   | A Constraint-based Approach to Cyclic<br>Resource-Constrained Scheduling Problem                         | Yes | [99]  | 2012 | DC SIAAI 2012                               | 3     | 0           | 0          | 362  | 773  |
| LombardiM12<br>LombardiM12         | M. Lombardi, M. Milano  | Optimal methods for resource allocation and<br>scheduling: a cross-disciplinary survey                   | Yes | [337] | 2012 | Constraints An Int.<br>J.                   | 35    | 39          | 68         | 1247 | 1468 |
| LombardiM12a<br>LombardiM12a       | M. Lombardi, M. Milano  | A min-flow algorithm for Minimal Critical Set<br>detection in Resource Constrained Project<br>Scheduling | Yes | [336] | 2012 | Artif. Intell.                              | 10    | 3           | 13         | 1248 | 1469 |
| BeniniLMR11<br>BeniniLMR11         | L. Benini, M. Lombardi, M. Milano, M. Ruggiero                  | Optimal resource allocation and scheduling for the<br>CELL BE platform                                   | Yes | [78]  | 2011 | Ann. Oper. Res.                             | 27    | 18          | 16         | 1179 | 1476 |
| BonfiettiLBM11<br>BonfiettiLBM11   | A. Bonfietti, M. Lombardi, L. Benini, M. Milano                 | A Constraint Based Approach to Cyclic RCPSP  | Yes | [94]  | 2011 | CP 2011                                     | 15    | 3           | 14         | 358  | 785  |
| LombardiBMB11<br>LombardiBMB11     | M. Lombardi, A. Bonfietti, M. Milano, L. Benini                 | Precedence Constraint Posting for Cyclic Scheduling<br>Problems  | Yes | [332] | 2011 | CPAIOR 2011                                 | 17    | 1           | 13         | 497  | 794  |
| LombardiM10<br>LombardiM10         | M. Lombardi, M. Milano  | Constraint Based Scheduling to Deal with Uncertain<br>Durations and Self-Timed Execution                 | Yes | [335] | 2010 | CP 2010                                     | 15    | 1           | 11         | 499  | 802  |
| LombardiM10a<br>LombardiM10a       | M. Lombardi, M. Milano  | Allocation and scheduling of Conditional Task<br>Graphs  | Yes | [334] | 2010 | Artif. Intell.                              | 30    | 8           | 24         | 1246 | 1489 |



Table 25: Works from bibtex (Total 24)

| Key                              | Authors  | Title  | LC  | Cite  | Year | Conference /Journal   | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|--|--|-----|-------|------|---|-------|----------|---------|------|------|
| LombardiM09<br>LombardiM09       | M. Lombardi, M. Milano   | A Precedence Constraint Posting Approach for the RCPSP with Time Lags and Variable Durations                                 | Yes | [333] | 2009 | CP 2009   | 15    | 7        | 12      | 498  | 811  |
| RuggieroBBMA09<br>RuggieroBBMA09 | M. Ruggiero, D. Bertozzi, L. Benini, M. Milano, A. Andrei            | Reducing the Abstraction and Optimality Gaps in the Allocation and Scheduling for Variable Voltage/Frequency MPSoC Platforms | Yes | [432] | 2009 | IEEE Trans. Comput. Aided Des. Integr. Circuits Syst. CPAIOR 2006 | 14    | 9        | 27      | 1286 | 1499 |
| BeniniBGM06<br>BeniniBGM06       | L. Benini, D. Bertozzi, A. Guerri, M. Milano                         | Allocation, Scheduling and Voltage Scaling on Energy Aware MPSoCs  | Yes | [77]  | 2006 | CPAIOR 2006   | 15    | 18       | 10      | 349  | 839  |
| LammaMM97<br>LammaMM97           | E. Lamma, P. Mello, M. Milano  | A distributed constraint-based scheduler   | Yes | [312] | 1997 | Artif. Intell. Eng.   | 15    | 11       | 7       | 1242 | 1551 |
| BrusoniCLMMT96<br>BrusoniCLMMT96 | V. Brusoni, L. Console, E. Lamma, P. Mello, M. Milano, P. Terenziani | Resource-Based vs. Task-Based Approaches for Scheduling Problems   | Yes | [110] | 1996 | ISMIS 1996  | 10    | 1        | 9       | 367  | 910  |

### D.3 Works by Andreas Schutt

Table 26: Works from bibtex (Total 24)

| Key                              | Authors  | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|--|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| YangSS19 YangSS19                | M. Yang, A. Schutt, Peter J. Stuckey                   | Time Table Edge Finding with Energy Variables  | Yes | [537] | 2019 | CPAIOR 2019            | 10    | 1        | 14      | 602  | 680  |
| GoldwaserS18<br>GoldwaserS18     | A. Goldwaser, A. Schutt                                | Optimal Torpedo Scheduling   | Yes | [207] | 2018 | J. Artif. Intell. Res. | 32    | 8        | 0       | 1210 | 1421 |
| KreterSSZ18<br>KreterSSZ18       | S. Kreter, A. Schutt, Peter J. Stuckey, J. Zimmermann  | Mixed-integer linear programming and constraint programming formulations for solving resource availability cost problems                   | No  | [300] | 2018 | Eur. J. Oper. Res.     | 15    | 25       | 31      | No   | 1424 |
| MusliuSS18 MusliuSS18            | N. Musliu, A. Schutt, Peter J. Stuckey                 | Solver Independent Rotating Workforce Scheduling   | Yes | [376] | 2018 | CPAIOR 2018            | 17    | 7        | 23      | 520  | 690  |
| GoldwaserS17<br>GoldwaserS17     | A. Goldwaser, A. Schutt                                | Optimal Torpedo Scheduling   | Yes | [206] | 2017 | CP 2017                | 16    | 0        | 10      | 424  | 700  |
| KreterSS17 KreterSS17            | S. Kreter, A. Schutt, Peter J. Stuckey                 | Using constraint programming for solving RCPSP/max-cal   | Yes | [299] | 2017 | Constraints An Int. J. | 31    | 15       | 20      | 1237 | 1431 |
| YoungFS17 YoungFS17              | Kenneth D. Young, T. Feydy, A. Schutt                  | Constraint Programming Applied to the Multi-Skill Project Scheduling Problem   | Yes | [539] | 2017 | CP 2017                | 10    | 6        | 21      | 603  | 708  |
| SchuttS16 SchuttS16              | A. Schutt, Peter J. Stuckey                            | Explaining Producer/Consumer Constraints   | Yes | [447] | 2016 | CP 2016                | 17    | 3        | 23      | 552  | 721  |
| SzerediS16 SzerediS16            | R. Szeredi, A. Schutt                                  | Modelling and Solving Multi-mode Resource-Constrained Project Scheduling   | Yes | [470] | 2016 | CP 2016                | 10    | 9        | 14      | 564  | 722  |
| EvenSH15 EvenSH15                | C. Even, A. Schutt, Pascal Van Hentenryck              | A Constraint Programming Approach for Non-preemptive Evacuation Scheduling   | Yes | [166] | 2015 | CP 2015                | 18    | 3        | 12      | 400  | 730  |
| EvenSH15a EvenSH15a              | C. Even, A. Schutt, Pascal Van Hentenryck              | A Constraint Programming Approach for Non-Preemptive Evacuation Scheduling   | Yes | [167] | 2015 | CoRR                   | 16    | 0        | 0       | 1198 | 1445 |
| KreterSS15 KreterSS15            | S. Kreter, A. Schutt, Peter J. Stuckey                 | Modeling and Solving Project Scheduling with Calendars   | Yes | [298] | 2015 | CP 2015                | 17    | 7        | 16      | 476  | 734  |
| ThiruvadyWGS14<br>ThiruvadyWGS14 | Dhananjay R. Thiruvady, M. Wallace, H. Gu, A. Schutt   | A Lagrangian relaxation and ACO hybrid for resource constrained project scheduling with discounted cash flows                              | Yes | [484] | 2014 | J. Heuristics          | 34    | 19       | 18      | 1304 | 1460 |
| ChuGNSW13<br>ChuGNSW13           | G. Chu, S. Gaspers, N. Narodytska, A. Schutt, T. Walsh | On the Complexity of Global Scheduling Constraints under Structural Restrictions   | Yes | [126] | 2013 | IJCAI 2013             | 7     | 0        | 0       | 376  | 760  |
| GuSS13 GuSS13                    | H. Gu, A. Schutt, Peter J. Stuckey                     | A Lagrangian Relaxation Based Forward-Backward Improvement Heuristic for Maximising the Net Present Value of Resource-Constrained Projects | Yes | [218] | 2013 | CPAIOR 2013            | 7     | 10       | 24      | 433  | 762  |
| SchuttFS13 SchuttFS13            | A. Schutt, T. Feydy, Peter J. Stuckey                  | Scheduling Optional Tasks with Explanation   | Yes | [441] | 2013 | CP 2013                | 17    | 10       | 20      | 549  | 768  |
| SchuttFS13a<br>SchuttFS13a       | A. Schutt, T. Feydy, Peter J. Stuckey                  | Explaining Time-Table-Edge-Finding Propagation for the Cumulative Resource Constraint  | Yes | [440] | 2013 | CPAIOR 2013            | 17    | 20       | 27      | 550  | 769  |

Table 26: Works from bibtex (Total 24)

| Key                            | Authors  | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|--------------------------------|--|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| SchuttFSW13<br>SchuttFSW13     | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace | Solving RCPSP/max by lazy clause generation  | Yes | [445] | 2013 | J. Sched.              | 17    | 43       | 23      | 1293 | 1465 |
| SchuttCSW12<br>SchuttCSW12     | A. Schutt, G. Chu, Peter J. Stuckey, Mark G. Wallace   | Maximising the Net Present Value for Resource-Constrained Project Scheduling                                       | Yes | [439] | 2012 | CPAIOR 2012            | 17    | 18       | 21      | 548  | 779  |
| SchuttFSW11<br>SchuttFSW11     | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace | Explaining the cumulative propagator   | Yes | [444] | 2011 | Constraints An Int. J. | 33    | 57       | 23      | 1292 | 1483 |
| SchuttW10 SchuttW10            | A. Schutt, A. Wolf                                     | A New $O(n^2 \log n)$ Not-First/Not-Last Pruning Algorithm for Cumulative Resource Constraints                     | Yes | [448] | 2010 | CP 2010                | 15    | 13       | 14      | 553  | 804  |
| abs-1009-0347<br>abs-1009-0347 | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace | Solving the Resource Constrained Project Scheduling Problem with Generalized Precedences by Lazy Clause Generation | Yes | [443] | 2010 | CoRR                   | 37    | 0        | 0       | 1330 | 1493 |
| SchuttFSW09<br>SchuttFSW09     | A. Schutt, T. Feydy, Peter J. Stuckey, M. Wallace      | Why Cumulative Decomposition Is Not as Bad as It Sounds  | Yes | [442] | 2009 | CP 2009                | 16    | 34       | 11      | 551  | 813  |
| SchuttWS05<br>SchuttWS05       | A. Schutt, A. Wolf, G. Schrader                        | Not-First and Not-Last Detection for Cumulative Scheduling in $O(n^3 \log n)$                                      | Yes | [449] | 2005 | INAP 2005              | 15    | 6        | 4       | 554  | 860  |

## D.4 Works by Peter J. Stuckey

Table 27: Works from bibtex (Total 23)

| Key                                | Authors   | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|---|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| YangSS19 YangSS19                  | M. Yang, A. Schutt, Peter J. Stuckey                                    | Time Table Edge Finding with Energy Variables  | Yes | [537] | 2019 | CPAIOR 2019            | 10    | 1        | 14      | 602  | 680  |
| DemirovicS18<br>DemirovicS18       | E. Demirovic, Peter J. Stuckey  | Constraint Programming for High School Timetabling: A Scheduling-Based Model with Hot Starts   | Yes | [150] | 2018 | CPAIOR 2018            | 18    | 4        | 16      | 389  | 685  |
| KreterSSZ18<br>KreterSSZ18         | S. Kreter, A. Schutt, Peter J. Stuckey, J. Zimmermann                   | Mixed-integer linear programming and constraint programming formulations for solving resource availability cost problems                   | No  | [300] | 2018 | Eur. J. Oper. Res.     | 15    | 25       | 31      | No   | 1424 |
| MusliuSS18 MusliuSS18              | N. Musliu, A. Schutt, Peter J. Stuckey                                  | Solver Independent Rotating Workforce Scheduling   | Yes | [376] | 2018 | CPAIOR 2018            | 17    | 7        | 23      | 520  | 690  |
| KreterSS17 KreterSS17              | S. Kreter, A. Schutt, Peter J. Stuckey                                  | Using constraint programming for solving RCPSP/max-cal   | Yes | [299] | 2017 | Constraints An Int. J. | 31    | 15       | 20      | 1237 | 1431 |
| BlomPS16 BlomPS16                  | Michelle L. Blom, Adrian R. Pearce, Peter J. Stuckey                    | A Decomposition-Based Algorithm for the Scheduling of Open-Pit Networks Over Multiple Time Periods   | No  | [88]  | 2016 | Manag. Sci.            | 26    | 20       | 36      | No   | 1434 |
| SchuttS16 SchuttS16                | A. Schutt, Peter J. Stuckey   | Explaining Producer/Consumer Constraints   | Yes | [447] | 2016 | CP 2016                | 17    | 3        | 23      | 552  | 721  |
| BurtLPS15 BurtLPS15                | Christina N. Burt, N. Lipovetzky, Adrian R. Pearce, Peter J. Stuckey    | Scheduling with Fixed Maintenance, Shared Resources and Nonlinear Feederate Constraints: A Mine Planning Case Study                        | Yes | [111] | 2015 | CPAIOR 2015            | 17    | 0        | 8       | 368  | 728  |
| KreterSS15 KreterSS15              | S. Kreter, A. Schutt, Peter J. Stuckey                                  | Modeling and Solving Project Scheduling with Calendars   | Yes | [298] | 2015 | CP 2015                | 17    | 7        | 16      | 476  | 734  |
| BlomBPS14<br>BlomBPS14             | Michelle L. Blom, Christina N. Burt, Adrian R. Pearce, Peter J. Stuckey | A Decomposition-Based Heuristic for Collaborative Scheduling in a Network of Open-Pit Mines  | No  | [87]  | 2014 | INFORMS J. Comput.     | 19    | 15       | 47      | No   | 1454 |
| LipovetzkyBPS14<br>LipovetzkyBPS14 | N. Lipovetzky, Christina N. Burt, Adrian R. Pearce, Peter J. Stuckey    | Planning for Mining Operations with Time and Resource Constraints  | Yes | [326] | 2014 | ICAPS 2014             | 9     | 0        | 0       | 492  | 757  |
| GuSS13 GuSS13                      | H. Gu, A. Schutt, Peter J. Stuckey                                      | A Lagrangian Relaxation Based Forward-Backward Improvement Heuristic for Maximising the Net Present Value of Resource-Constrained Projects | Yes | [218] | 2013 | CPAIOR 2013            | 7     | 10       | 24      | 433  | 762  |
| SchuttFS13 SchuttFS13              | A. Schutt, T. Feydy, Peter J. Stuckey                                   | Scheduling Optional Tasks with Explanation   | Yes | [441] | 2013 | CP 2013                | 17    | 10       | 20      | 549  | 768  |

Table 27: Works from bibtex (Total 23)

| Key                                    | Authors  | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|--|--|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| SchuttFS13a<br>SchuttFS13a             | A. Schutt, T. Feydy, Peter J. Stuckey  | Explaining Time-Table-Edge-Finding Propagation for the Cumulative Resource Constraint                              | Yes | [440] | 2013 | CPAIOR 2013            | 17    | 20       | 27      | 550  | 769  |
| SchuttFSW13<br>SchuttFSW13             | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace                         | Solving RCPSP/max by lazy clause generation  | Yes | [445] | 2013 | J. Sched.              | 17    | 43       | 23      | 1293 | 1465 |
| GuSW12 GuSW12                          | H. Gu, Peter J. Stuckey, Mark G. Wallace                                       | Maximising the Net Present Value of Large Resource-Constrained Projects  | Yes | [219] | 2012 | CP 2012                | 15    | 5        | 20      | 434  | 774  |
| SchuttCSW12<br>SchuttCSW12             | A. Schutt, G. Chu, Peter J. Stuckey, Mark G. Wallace                           | Maximising the Net Present Value for Resource-Constrained Project Scheduling                                       | Yes | [439] | 2012 | CPAIOR 2012            | 17    | 18       | 21      | 548  | 779  |
| BandaSC11 BandaSC11                    | Maria Garcia de la Banda, Peter J. Stuckey, G. Chu                             | Solving Talent Scheduling with Dynamic Programming   | No  | [144] | 2011 | INFORMS J. Comput.     | 18    | 24       | 17      | No   | 1472 |
| SchuttFSW11<br>SchuttFSW11             | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace                         | Explaining the cumulative propagator   | Yes | [444] | 2011 | Constraints An Int. J. | 33    | 57       | 23      | 1292 | 1483 |
| abs-1009-0347<br>abs-1009-0347         | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace                         | Solving the Resource Constrained Project Scheduling Problem with Generalized Precedences by Lazy Clause Generation | Yes | [443] | 2010 | CoRR                   | 37    | 0        | 0       | 1330 | 1493 |
| OhrimenkoSC09<br>OhrimenkoSC09         | O. Ohrimenko, Peter J. Stuckey, M. Codish                                      | Propagation via lazy clause generation   | Yes | [395] | 2009 | Constraints            | 35    | 127      | 15      | 1273 | 1498 |
| SchuttFSW09<br>SchuttFSW09             | A. Schutt, T. Feydy, Peter J. Stuckey, M. Wallace                              | Why Cumulative Decomposition Is Not as Bad as It Sounds  | Yes | [442] | 2009 | CP 2009                | 16    | 34       | 11      | 551  | 813  |
| NethercoteSBBDT07<br>NethercoteSBBDT07 | N. Nethercote, Peter J. Stuckey, R. Becket, S. Brand, Gregory J. Duck, G. Tack | MiniZinc: Towards a Standard CP Modelling Language   | Yes | [382] | 2007 | CP 2007                | 15    | 344      | 5       | 522  | 836  |

## D.5 Works by Michele Lombardi

Table 28: Works from bibtex (Total 22)

| Key                                | Authors  | Title  | LC  | Cite  | Year | Conference /Journal                    | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|--|--|-----|-------|------|--|-------|----------|---------|------|------|
| BorghesiBLMB18<br>BorghesiBLMB18   | A. Borghesi, A. Bartolini, M. Lombardi, M. Milano, L. Benini | Scheduling-based power capping in high performance computing systems                     | Yes | [102] | 2018 | Sustain. Comput. Informatics Syst.     | 13    | 11       | 22      | 1186 | 1416 |
| CauwelaertLS18<br>CauwelaertLS18   | Sascha Van Cauwelaert, M. Lombardi, P. Schaus                | How efficient is a global constraint in practice? - A fair experimental framework        | Yes | [122] | 2018 | Constraints An Int. J.                 | 36    | 2        | 39      | 1191 | 1417 |
| BonfiettiZLM16<br>BonfiettiZLM16   | A. Bonfietti, A. Zanarini, M. Lombardi, M. Milano            | The Multirate Resource Constraint  | Yes | [100] | 2016 | CP 2016                                | 17    | 0        | 11      | 363  | 709  |
| BridiBLMB16<br>BridiBLMB16         | T. Bridi, A. Bartolini, M. Lombardi, M. Milano, L. Benini    | A Constraint Programming Scheduler for Heterogeneous High-Performance Computing Machines | Yes | [107] | 2016 | IEEE Trans. Parallel Distributed Syst. | 14    | 17       | 22      | 1188 | 1436 |
| BridiLBBM16<br>BridiLBBM16         | T. Bridi, M. Lombardi, A. Bartolini, L. Benini, M. Milano    | DARDIS: Distributed And Randomized Dispatching and Scheduling                            | Yes | [108] | 2016 | ECAI 2016                              | 2     | 0        | 0       | 366  | 711  |
| LombardiBM15<br>LombardiBM15       | M. Lombardi, A. Bonfietti, M. Milano                         | Deterministic Estimation of the Expected Makespan of a POS Under Duration Uncertainty    | Yes | [331] | 2015 | CP 2015                                | 16    | 0        | 8       | 496  | 736  |
| BartoliniBBLM14<br>BartoliniBBLM14 | A. Bartolini, A. Borghesi, T. Bridi, M. Lombardi, M. Milano  | Proactive Workload Dispatching on the EURORA Supercomputer                               | Yes | [49]  | 2014 | CP 2014                                | 16    | 12       | 3       | 336  | 745  |
| BonfiettiLBM14<br>BonfiettiLBM14   | A. Bonfietti, M. Lombardi, L. Benini, M. Milano              | CROSS cyclic resource-constrained scheduling solver                                      | Yes | [96]  | 2014 | Artif. Intell.                         | 28    | 8        | 15      | 1185 | 1455 |
| BonfiettiLM14<br>BonfiettiLM14     | A. Bonfietti, M. Lombardi, M. Milano                         | Disregarding Duration Uncertainty in Partial Order Schedules? Yes, We Can!               | Yes | [98]  | 2014 | CPAIOR 2014                            | 16    | 3        | 12      | 361  | 748  |
| BonfiettiLM13<br>BonfiettiLM13     | A. Bonfietti, M. Lombardi, M. Milano                         | De-Cycling Cyclic Scheduling Problems  | Yes | [97]  | 2013 | ICAPS 2013                             | 5     | 0        | 0       | 360  | 759  |

Table 28: Works from bibtex (Total 22)

| Key                              | Authors  | Title   | LC  | Cite  | Year | Conference<br>/Journal       | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|----------------------------------|--|---|-----|-------|------|------------------------------|-------|-------------|------------|------|------|
| LombardiM13<br>LombardiM13       | M. Lombardi, M. Milano                                       | A Min-Flow Algorithm for Minimal Critical Set Detection in Resource Constrained Project Scheduling          | Yes | [338] | 2013 | ICAPS 2013                   | 2     | 0           | 0          | 500  | 766  |
| BonfiettiLBM12<br>BonfiettiLBM12 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano              | Global Cyclic Cumulative Constraint   | Yes | [95]  | 2012 | CPAIOR 2012                  | 16    | 2           | 11         | 359  | 772  |
| LombardiM12<br>LombardiM12       | M. Lombardi, M. Milano                                       | Optimal methods for resource allocation and scheduling: a cross-disciplinary survey                         | Yes | [337] | 2012 | Constraints An Int. J.       | 35    | 39          | 68         | 1247 | 1468 |
| LombardiM12a<br>LombardiM12a     | M. Lombardi, M. Milano                                       | A min-flow algorithm for Minimal Critical Set detection in Resource Constrained Project Scheduling          | Yes | [336] | 2012 | Artif. Intell.               | 10    | 3           | 13         | 1248 | 1469 |
| BeniniLMR11<br>BeniniLMR11       | L. Benini, M. Lombardi, M. Milano, M. Ruggiero               | Optimal resource allocation and scheduling for the CELL BE platform   | Yes | [78]  | 2011 | Ann. Oper. Res.              | 27    | 18          | 16         | 1179 | 1476 |
| BonfiettiLBM11<br>BonfiettiLBM11 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano              | A Constraint Based Approach to Cyclic RCPSP   | Yes | [94]  | 2011 | CP 2011                      | 15    | 3           | 14         | 358  | 785  |
| LombardiBMB11<br>LombardiBMB11   | M. Lombardi, A. Bonfietti, M. Milano, L. Benini              | Precedence Constraint Posting for Cyclic Scheduling Problems  | Yes | [332] | 2011 | CPAIOR 2011                  | 17    | 1           | 13         | 497  | 794  |
| Lombardi10<br>Lombardi10         | M. Lombardi  | Hybrid Methods for Resource Allocation and Scheduling Problems in Deterministic and Stochastic Environments | Yes | [330] | 2010 | University of Bologna, Italy | 175   | 0           | 0          | 2485 | ??   |
| LombardiM10<br>LombardiM10       | M. Lombardi, M. Milano                                       | Constraint Based Scheduling to Deal with Uncertain Durations and Self-Timed Execution                       | Yes | [335] | 2010 | CP 2010                      | 15    | 1           | 11         | 499  | 802  |
| LombardiM10a<br>LombardiM10a     | M. Lombardi, M. Milano                                       | Allocation and scheduling of Conditional Task Graphs  | Yes | [334] | 2010 | Artif. Intell.               | 30    | 8           | 24         | 1246 | 1489 |
| LombardiM09<br>LombardiM09       | M. Lombardi, M. Milano                                       | A Precedence Constraint Posting Approach for the RCPSP with Time Lags and Variable Durations                | Yes | [333] | 2009 | CP 2009                      | 15    | 7           | 12         | 498  | 811  |
| HoeveGSL07<br>HoeveGSL07         | Willem Jan van Hoeve, Carla P. Gomes, B. Selman, M. Lombardi | Optimal Multi-Agent Scheduling with Constraint Programming  | Yes | [506] | 2007 | AAAI 2007                    | 6     | 0           | 0          | 448  | 830  |

## D.6 Works by Emmanuel Hebrard

Table 29: Works from bibtex (Total 17)

| Key                                | Authors   | Title   | LC  | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|------------------------------------|---|---|-----|-------|------|------------------------|-------|-------------|------------|------|------|
| JuvinHHL23<br>JuvinHHL23           | C. Juvin, E. Hebrard, L. Houssin, P. Lopez  | An Efficient Constraint Programming Approach to Preemptive Job Shop Scheduling  | Yes | [268] | 2023 | CP 2023                | 16    | 0           | 0          | 457  | 616  |
| HebrardALLCMR22<br>HebrardALLCMR22 | E. Hebrard, C. Artigues, P. Lopez, A. Lussion, Steve A. Chien, A. Maillard, Gregg R. Rabideau | An Efficient Approach to Data Transfer Scheduling for Long Range Space Exploration  | Yes | [230] | 2022 | IJCAI 2022             | 7     | 0           | 0          | 437  | 631  |
| AntuoriHHEN21<br>AntuoriHHEN21     | V. Antuori, E. Hebrard, M. Huguet, S. Essodaigui, A. Nguyen                                   | Combining Monte Carlo Tree Search and Depth First Search Methods for a Car Manufacturing Workshop Scheduling Problem              | Yes | [15]  | 2021 | CP 2021                | 16    | 0           | 0          | 318  | 644  |
| ArtiguesHQT21<br>ArtiguesHQT21     | C. Artigues, E. Hebrard, A. Quilliot, H. Toussaint  | Multi-Mode RCPSP with Safety Margin Maximization: Models and Algorithms   | No  | [22]  | 2021 | ICORES 2021            | 8     | 0           | 0          | No   | 646  |
| AntuoriHHEN20<br>AntuoriHHEN20     | V. Antuori, E. Hebrard, M. Huguet, S. Essodaigui, A. Nguyen                                   | Leveraging Reinforcement Learning, Constraint Programming and Local Search: A Case Study in Car Manufacturing                     | Yes | [14]  | 2020 | CP 2020                | 16    | 3           | 8          | 317  | 656  |
| GodetLHS20<br>GodetLHS20           | A. Godet, X. Lorca, E. Hebrard, G. Simonin  | Using Approximation within Constraint Programming to Solve the Parallel Machine Scheduling Problem with Additional Unit Resources | Yes | [203] | 2020 | AAAI 2020              | 8     | 1           | 0          | 423  | 658  |
| HebrardHJMPV16<br>HebrardHJMPV16   | E. Hebrard, M. Huguet, N. Jozefowicz, A. Maillard, C. Pralet, G. Verfaillie                   | Approximation of the parallel machine scheduling problem with additional unit resources   | Yes | [231] | 2016 | Discret. Appl. Math.   | 10    | 9           | 8          | 1217 | 1439 |

Table 29: Works from bibtex (Total 17)

| Key                           | Authors  | Title  | LC  | Cite  | Year | Conference /Journal        | Pages | Nr Cites | Nr Refs | b    | c    |
|-------------------------------|--|--|-----|-------|------|----------------------------|-------|----------|---------|------|------|
| GrimesH15 GrimesH15           | D. Grimes, E. Hebrard                                    | Solving Variants of the Job Shop Scheduling Problem Through Conflict-Directed Search                 | No  | [212] | 2015 | INFORMS J. Comput. CP 2015 | 17    | 12       | 41      | No   | 1447 |
| SialaAH15 SialaAH15           | M. Siala, C. Artigues, E. Hebrard                        | Two Clause Learning Approaches for Disjunctive Scheduling  | Yes | [457] | 2015 | CP 2015                    | 10    | 4        | 17      | 557  | 741  |
| SimoninAHL15 SimoninAHL15     | G. Simonin, C. Artigues, E. Hebrard, P. Lopez            | Scheduling scientific experiments for comet exploration  | Yes | [459] | 2015 | Constraints An Int. J.     | 23    | 4        | 5       | 1297 | 1452 |
| BessiereHMQW14 BessiereHMQW14 | C. Bessiere, E. Hebrard, M. Ménard, C. Quimper, T. Walsh | Buffered Resource Constraint: Algorithms and Complexity  | Yes | [81]  | 2014 | CPAIOR 2014                | 16    | 1        | 3       | 351  | 746  |
| BillautHL12 BillautHL12       | J. Billaut, E. Hebrard, P. Lopez                         | Complete Characterization of Near-Optimal Sequences for the Two-Machine Flow Shop Scheduling Problem | Yes | [83]  | 2012 | CPAIOR 2012                | 15    | 1        | 19      | 352  | 771  |
| SimoninAHL12 SimoninAHL12     | G. Simonin, C. Artigues, E. Hebrard, P. Lopez            | Scheduling Scientific Experiments on the Rosetta/Philae Mission                                      | Yes | [458] | 2012 | CP 2012                    | 15    | 3        | 8       | 558  | 781  |
| GrimesH11 GrimesH11           | D. Grimes, E. Hebrard                                    | Models and Strategies for Variants of the Job Shop Scheduling Problem                                | Yes | [211] | 2011 | CP 2011                    | 17    | 5        | 18      | 428  | 789  |
| GrimesH10 GrimesH10           | D. Grimes, E. Hebrard                                    | Job Shop Scheduling with Setup Times and Maximal Time-Lags: A Simple Constraint Programming Approach | Yes | [210] | 2010 | CPAIOR 2010                | 15    | 13       | 20      | 427  | 801  |
| GrimesHM09 GrimesHM09         | D. Grimes, E. Hebrard, A. Malapert                       | Closing the Open Shop: Contradicting Conventional Wisdom   | Yes | [213] | 2009 | CP 2009                    | 9     | 15       | 12      | 429  | 809  |
| HebrardTW05 HebrardTW05       | E. Hebrard, P. Tyler, T. Walsh                           | Computing Super-Schedules  | Yes | [232] | 2005 | CP 2005                    | 1     | 0        | 3       | 438  | 855  |

## D.7 Works by John N. Hooker

Table 30: Works from bibtex (Total 14)

| Key                   | Authors                                 | Title   | LC  | Cite  | Year | Conference /Journal   | Pages | Nr Cites | Nr Refs | b    | c    |
|-----------------------|---|---|-----|-------|------|---|-------|----------|---------|------|------|
| Hooker19 Hooker19     | John N. Hooker                          | Logic-Based Benders Decomposition for Large-Scale Optimization                              | No  | [255] | 2019 | Large Scale Optimization in Supply Chains and Smart Manufacturing | 26    | 8        | 0       | No   | ??   |
| HookerH18 HookerH18   | John N. Hooker, Willem Jan van Hoeve    | Constraint programming and operations research  | Yes | [257] | 2018 | Constraints An Int. J.  | 24    | 12       | 189     | 1225 | 1423 |
| Hooker17 Hooker17     | John N. Hooker                          | Job Sequencing Bounds from Decision Diagrams  | Yes | [254] | 2017 | CP 2017   | 14    | 6        | 24      | 451  | 701  |
| HechingH16 HechingH16 | Aliza R. Heching, John N. Hooker        | Scheduling Home Hospice Care with Logic-Based Benders Decomposition                         | Yes | [233] | 2016 | CPAIOR 2016   | 11    | 10       | 0       | 439  | 716  |
| CireCH13 CireCH13     | André A. Ciré, E. Coban, John N. Hooker | Mixed Integer Programming vs. Logic-Based Benders Decomposition for Planning and Scheduling | Yes | [128] | 2013 | CPAIOR 2013   | 7     | 3        | 23      | 378  | 761  |
| CobanH10 CobanH10     | E. Coban, John N. Hooker                | Single-Facility Scheduling over Long Time Horizons by Logic-Based Benders Decomposition     | Yes | [130] | 2010 | CPAIOR 2010   | 5     | 9        | 9       | 380  | 799  |
| Hooker07 Hooker07     | John N. Hooker                          | Planning and Scheduling by Logic-Based Benders Decomposition                                | No  | [253] | 2007 | Operations Research   | null  | 181      | 19      | No   | 1509 |
| Hooker06 Hooker06     | John N. Hooker                          | An Integrated Method for Planning and Scheduling to Minimize Tardiness                      | Yes | [252] | 2006 | Constraints An Int. J.  | 19    | 19       | 13      | 1224 | 1512 |
| Hooker05 Hooker05     | John N. Hooker                          | A Hybrid Method for the Planning and Scheduling   | Yes | [250] | 2005 | Constraints An Int. J.  | 17    | 68       | 11      | 1223 | 1516 |
| Hooker05a Hooker05a   | John N. Hooker                          | Planning and Scheduling to Minimize Tardiness   | Yes | [251] | 2005 | CP 2005   | 14    | 30       | 10      | 450  | 856  |
| Hooker04 Hooker04     | John N. Hooker                          | A Hybrid Method for Planning and Scheduling   | Yes | [249] | 2004 | CP 2004   | 12    | 39       | 9       | 449  | 867  |

Table 30: Works from bibtex (Total 14)

| Key                 | Authors                     | Title  | LC  | Cite  | Year | Conference /Journal      | Pages | Nr Cites | Nr Refs | b   | c    |
|---------------------|-----------------------------|--|-----|-------|------|--------------------------|-------|----------|---------|-----|------|
| HookerO03 HookerO03 | John N. Hooker, G. Ottosson | Logic-based Benders decomposition  | No  | [256] | 2003 | Mathematical Programming | null  | 317      | 0       | No  | 1521 |
| HookerY02 HookerY02 | John N. Hooker, H. Yan      | A Relaxation of the Cumulative Constraint  | Yes | [258] | 2002 | CP 2002                  | 5     | 8        | 7       | 452 | 888  |
| Hooker00 Hooker00   | John N. Hooker              | Logic Based Methods for Optimization: Combining Optimization and Constraint Satisfaction | No  | [248] | 2000 | Book                     | null  | 185      | 0       | No  | ??   |

## D.8 Works by Nicolas Beldiceanu

Table 31: Works from bibtex (Total 13)

| Key                   | Authors  | Title   | LC  | Cite  | Year | Conference /Journal                 | Pages | Nr Cites | Nr Refs | b    | c    |
|-----------------------|--|---|-----|-------|------|-------------------------------------|-------|----------|---------|------|------|
| Madi-WambaLOBM17      | G. Madi-Wamba, Y. Li, A. Orgerie, N. Beldiceanu, J. Menaud | Green Energy Aware Scheduling Problem in Virtualized Datacenters  | Yes | [348] | 2017 | ICPADS 2017                         | 8     | 1        | 8       | 504  | 704  |
| Madi-WambaB16         | G. Madi-Wamba, N. Beldiceanu                               | The TaskIntersection Constraint   | Yes | [347] | 2016 | CPAIOR 2016                         | 16    | 0        | 0       | 503  | 720  |
| Madi-WambaB16         |  |   |     |       |      |                                     |       |          |         |      |      |
| LetortCB15 LetortCB15 | A. Letort, M. Carlsson, N. Beldiceanu                      | Synchronized sweep algorithms for scalable scheduling constraints   | Yes | [318] | 2015 | Constraints An Int. J.              | 52    | 2        | 14      | 1243 | 1449 |
| LetortCB13 LetortCB13 | A. Letort, M. Carlsson, N. Beldiceanu                      | A Synchronized Sweep Algorithm for the <i>k-dimensional cumulative</i> Constraint                                       | Yes | [317] | 2013 | CPAIOR 2013                         | 16    | 3        | 10      | 486  | 765  |
| LetortBC12 LetortBC12 | A. Letort, N. Beldiceanu, M. Carlsson                      | A Scalable Sweep Algorithm for the cumulative Constraint  | Yes | [316] | 2012 | CP 2012                             | 16    | 18       | 12      | 485  | 777  |
| BeldiceanuCDP11       | N. Beldiceanu, M. Carlsson, S. Demassey, E. Poder          | New filtering for the <i>cumulative</i> constraint in the context of non-overlapping rectangles                         | Yes | [69]  | 2011 | Ann. Oper. Res.                     | 24    | 8        | 8       | 1176 | 1475 |
| BeldiceanuCDP11       |  |   |     |       |      |                                     |       |          |         |      |      |
| ClercqPBJ11           | Alexis De Clercq, T. Petit, N. Beldiceanu, N. Jussien      | Filtering Algorithms for Discrete Cumulative Problems with Overloads of Resource  | Yes | [129] | 2011 | CP 2011                             | 16    | 3        | 11      | 379  | 787  |
| BeldiceanuCP08        | N. Beldiceanu, M. Carlsson, E. Poder                       | New Filtering for the cumulative Constraint in the Context of Non-Overlapping Rectangles                                | Yes | [70]  | 2008 | CPAIOR 2008                         | 15    | 8        | 9       | 345  | 818  |
| BeldiceanuCP08        |  |   |     |       |      |                                     |       |          |         |      |      |
| PoderB08 PoderB08     | E. Poder, N. Beldiceanu                                    | Filtering for a Continuous Multi-Resources cumulative Constraint with Resource Consumption and Production               | Yes | [411] | 2008 | ICAPS 2008                          | 8     | 0        | 0       | 535  | 824  |
| BeldiceanuP07         | N. Beldiceanu, E. Poder                                    | A Continuous Multi-resources <i>cumulative</i> Constraint with Positive-Negative Resource Consumption-Production        | Yes | [71]  | 2007 | CPAIOR 2007                         | 15    | 4        | 7       | 346  | 827  |
| BeldiceanuP07         |  |   |     |       |      |                                     |       |          |         |      |      |
| PoderBS04 PoderBS04   | E. Poder, N. Beldiceanu, E. Sanlaville                     | Computing a lower approximation of the compulsory part of a task with varying duration and varying resource consumption | Yes | [412] | 2004 | Eur. J. Oper. Res.                  | 16    | 7        | 8       | 1277 | 1519 |
| BeldiceanuC02         | N. Beldiceanu, M. Carlsson                                 | A New Multi-resource cumulatives Constraint with Negative Heights   | Yes | [68]  | 2002 | CP 2002                             | 17    | 33       | 9       | 344  | 885  |
| BeldiceanuC02         |  |   |     |       |      |                                     |       |          |         |      |      |
| AggounB93 AggounB93   | A. Aggoun, N. Beldiceanu                                   | Extending CHIP in order to solve complex scheduling and placement problems  | Yes | [7]   | 1993 | Mathematical and Computer Modelling | 17    | 187      | 11      | 1154 | 1557 |

## D.9 Works by Pierre Lopez

Table 32: Works from bibtex (Total 13)

| Key                                | Authors   | Title  | LC  | Cite  | Year | Conference /Journal                      | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|---|--|-----|-------|------|--|-------|----------|---------|------|------|
| JuvinHHL23<br>JuvinHHL23           | C. Juvin, E. Hebrard, L. Houssin, P. Lopez  | An Efficient Constraint Programming Approach to Preemptive Job Shop Scheduling   | Yes | [268] | 2023 | CP 2023                                  | 16    | 0        | 0       | 457  | 616  |
| JuvinHL23 JuvinHL23                | C. Juvin, L. Houssin, P. Lopez  | Constraint Programming for the Robust Two-Machine Flow-Shop Scheduling Problem with Budgeted Uncertainty                       | Yes | [269] | 2023 | CPAIOR 2023                              | 16    | 0        | 11      | 458  | 617  |
| HebrardALLCMR22<br>HebrardALLCMR22 | E. Hebrard, C. Artigues, P. Lopez, A. Lussion, Steve A. Chien, A. Maillard, Gregg R. Rabideau | An Efficient Approach to Data Transfer Scheduling for Long Range Space Exploration   | Yes | [230] | 2022 | IJCAI 2022                               | 7     | 0        | 0       | 437  | 631  |
| Polo-MejiaALB20<br>Polo-MejiaALB20 | O. Polo-Mejía, C. Artigues, P. Lopez, V. Basini   | Mixed-integer/linear and constraint programming approaches for activity scheduling in a nuclear research facility              | Yes | [414] | 2020 | Int. J. Prod. Res.                       | 18    | 8        | 23      | 1279 | 1398 |
| NattafAL17 NattafAL17              | M. Nattaf, C. Artigues, P. Lopez  | Cumulative scheduling with variable task profiles and concave piecewise linear processing rate functions                       | Yes | [380] | 2017 | Constraints An Int. J.                   | 18    | 5        | 10      | 1265 | 1432 |
| NattafAL15 NattafAL15              | M. Nattaf, C. Artigues, P. Lopez  | A hybrid exact method for a scheduling problem with a continuous resource and energy constraints                               | Yes | [379] | 2015 | Constraints An Int. J.                   | 21    | 14       | 13      | 1264 | 1450 |
| SimoninAHL15<br>SimoninAHL15       | G. Simonin, C. Artigues, E. Hebrard, P. Lopez   | Scheduling scientific experiments for comet exploration  | Yes | [459] | 2015 | Constraints An Int. J.                   | 23    | 4        | 5       | 1297 | 1452 |
| BillautHL12<br>BillautHL12         | J. Billaut, E. Hebrard, P. Lopez  | Complete Characterization of Near-Optimal Sequences for the Two-Machine Flow Shop Scheduling Problem                           | Yes | [83]  | 2012 | CPAIOR 2012                              | 15    | 1        | 19      | 352  | 771  |
| SimoninAHL12<br>SimoninAHL12       | G. Simonin, C. Artigues, E. Hebrard, P. Lopez   | Scheduling Scientific Experiments on the Rosetta/Philae Mission  | Yes | [458] | 2012 | CP 2012                                  | 15    | 3        | 8       | 558  | 781  |
| LahimerLH11<br>LahimerLH11         | A. Lahimer, P. Lopez, M. Haouari  | Climbing Depth-Bounded Adjacent Discrepancy Search for Solving Hybrid Flow Shop Scheduling Problems with Multiprocessor Tasks  | Yes | [311] | 2011 | CPAIOR 2011                              | 14    | 3        | 15      | 483  | 793  |
| TrojetHL11 TrojetHL11              | M. Trojet, F. H'Mida, P. Lopez  | Project scheduling under resource constraints: Application of the cumulative global constraint in a decision support framework | Yes | [500] | 2011 | Comput. Ind. Eng.                        | 7     | 11       | 17      | 1309 | 1485 |
| LopezAKYG00<br>LopezAKYG00         | P. Lopez, H. Alla, O. Korbaa, P. Yim, J. Gentina  | Discussion on: 'Solving Transient Scheduling Problems with Constraint Programming' by O. Korbaa, P. Yim, and J.-C. Gentina     | Yes | [340] | 2000 | Eur. J. Control                          | 4     | 0        | 0       | 1250 | 1537 |
| TorresL00 TorresL00                | P. Torres, P. Lopez   | On Not-First/Not-Last conditions in disjunctive scheduling   | No  | [489] | 2000 | European Journal of Operational Research | null  | 26       | 13      | No   | 1541 |

## D.10 Works by Christian Artigues

Table 33: Works from bibtex (Total 12)

| Key                                | Authors   | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|---|---|-----|-------|------|---------------------|-------|----------|---------|------|------|
| PovedaAA23<br>PovedaAA23           | G. Pováda, N. Álvarez, C. Artigues  | Partially Preemptive Multi Skill/Mode Resource-Constrained Project Scheduling with Generalized Precedence Relations and Calendars | Yes | [417] | 2023 | CP 2023             | 21    | 0        | 0       | 537  | 622  |
| HebrardALLCMR22<br>HebrardALLCMR22 | E. Hebrard, C. Artigues, P. Lopez, A. Lussion, Steve A. Chien, A. Maillard, Gregg R. Rabideau | An Efficient Approach to Data Transfer Scheduling for Long Range Space Exploration  | Yes | [230] | 2022 | IJCAI 2022          | 7     | 0        | 0       | 437  | 631  |
| PohlAK22 PohlAK22                  | M. Pohl, C. Artigues, R. Kolisch  | Solving the time-discrete winter runway scheduling problem: A column generation and constraint programming approach               | Yes | [413] | 2022 | Eur. J. Oper. Res.  | 16    | 4        | 31      | 1278 | 1370 |

Table 33: Works from bibtex (Total 12)

| Key                                | Authors  | Title   | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|--|---|-----|-------|------|------------------------|-------|----------|---------|------|------|
| ArtiguesHQT21<br>ArtiguesHQT21     | C. Artigues, E. Hebrard, A. Quilliot, H. Toussaint | Multi-Mode RCPSP with Safety Margin Maximization: Models and Algorithms   | No  | [22]  | 2021 | ICORES 2021            | 8     | 0        | 0       | No   | 646  |
| Polo-MejiaALB20<br>Polo-MejiaALB20 | O. Polo-Mejia, C. Artigues, P. Lopez, V. Basini    | Mixed-integer/linear and constraint programming approaches for activity scheduling in a nuclear research facility     | Yes | [414] | 2020 | Int. J. Prod. Res.     | 18    | 8        | 23      | 1279 | 1398 |
| NattafAL17 NattafAL17              | M. Nattaf, C. Artigues, P. Lopez                   | Cumulative scheduling with variable task profiles and concave piecewise linear processing rate functions              | Yes | [380] | 2017 | Constraints An Int. J. | 18    | 5        | 10      | 1265 | 1432 |
| NattafAL15 NattafAL15              | M. Nattaf, C. Artigues, P. Lopez                   | A hybrid exact method for a scheduling problem with a continuous resource and energy constraints                      | Yes | [379] | 2015 | Constraints An Int. J. | 21    | 14       | 13      | 1264 | 1450 |
| SialaAH15 SialaAH15                | M. Siala, C. Artigues, E. Hebrard                  | Two Clause Learning Approaches for Disjunctive Scheduling   | Yes | [457] | 2015 | CP 2015                | 10    | 4        | 17      | 557  | 741  |
| SimoninAHL15<br>SimoninAHL15       | G. Simonin, C. Artigues, E. Hebrard, P. Lopez      | Scheduling scientific experiments for comet exploration   | Yes | [459] | 2015 | Constraints An Int. J. | 23    | 4        | 5       | 1297 | 1452 |
| SimoninAHL12<br>SimoninAHL12       | G. Simonin, C. Artigues, E. Hebrard, P. Lopez      | Scheduling Scientific Experiments on the Rosetta/Philae Mission   | Yes | [458] | 2012 | CP 2012                | 15    | 3        | 8       | 558  | 781  |
| ArtiguesBF04<br>ArtiguesBF04       | C. Artigues, S. Belmokhtar, D. Feillet             | A New Exact Solution Algorithm for the Job Shop Problem with Sequence-Dependent Setup Times                           | Yes | [21]  | 2004 | CPAIOR 2004            | 13    | 16       | 9       | 323  | 864  |
| ArtiguesR00<br>ArtiguesR00         | C. Artigues, F. Roubellat                          | A polynomial activity insertion algorithm in a multi-resource schedule with cumulative constraints and multiple modes | Yes | [23]  | 2000 | Eur. J. Oper. Res.     | 20    | 84       | 3       | 1157 | 1532 |

## D.11 Works by Pierre Schaus

Table 34: Works from bibtex (Total 12)

| Key                                | Authors  | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|--|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| CauwelaertDS20<br>CauwelaertDS20   | Sasha Van Cauwelaert, C. Dejemeppe, P. Schaus                        | An Efficient Filtering Algorithm for the Unary Resource Constraint with Transition Times and Optional Activities | No  | [123] | 2020 | Journal of Scheduling  | null  | 2        | 21      | No   | 1392 |
| CappartTSR18<br>CappartTSR18       | Q. Cappart, C. Thomas, P. Schaus, L. Rousseau                        | A Constraint Programming Approach for Solving Patient Transportation Problems                                    | Yes | [115] | 2018 | CP 2018                | 17    | 6        | 31      | 370  | 684  |
| CauwelaertLS18<br>CauwelaertLS18   | Sascha Van Cauwelaert, M. Lombardi, P. Schaus                        | How efficient is a global constraint in practice? - A fair experimental framework                                | Yes | [122] | 2018 | Constraints An Int. J. | 36    | 2        | 39      | 1191 | 1417 |
| CappartS17 CappartS17              | Q. Cappart, P. Schaus  | Rescheduling Railway Traffic on Real Time Situations Using Time-Interval Variables                               | Yes | [114] | 2017 | CPAIOR 2017            | 16    | 2        | 28      | 369  | 697  |
| CauwelaertDMS16<br>CauwelaertDMS16 | Sascha Van Cauwelaert, C. Dejemeppe, J. Monette, P. Schaus           | Efficient Filtering for the Unary Resource with Family-Based Transition Times                                    | Yes | [121] | 2016 | CP 2016                | 16    | 1        | 12      | 373  | 712  |
| DejemeppeCS15<br>DejemeppeCS15     | C. Dejemeppe, Sascha Van Cauwelaert, P. Schaus                       | The Unary Resource with Transition Times   | Yes | [147] | 2015 | CP 2015                | 16    | 5        | 11      | 387  | 729  |
| GayHLS15 GayHLS15                  | S. Gay, R. Hartert, C. Lecoutre, P. Schaus                           | Conflict Ordering Search for Scheduling Problems   | Yes | [187] | 2015 | CP 2015                | 9     | 20       | 15      | 410  | 731  |
| GayHS15 GayHS15                    | S. Gay, R. Hartert, P. Schaus  | Simple and Scalable Time-Table Filtering for the Cumulative Constraint   | Yes | [188] | 2015 | CP 2015                | 9     | 10       | 9       | 411  | 732  |
| GayHS15a GayHS15a                  | S. Gay, R. Hartert, P. Schaus  | Time-Table Disjunctive Reasoning for the Cumulative Constraint   | Yes | [189] | 2015 | CPAIOR 2015            | 16    | 5        | 12      | 412  | 733  |
| GaySS14 GaySS14                    | S. Gay, P. Schaus, Vivian De Smedt                                   | Continuous Casting Scheduling with Constraint Programming  | Yes | [190] | 2014 | CP 2014                | 15    | 7        | 11      | 413  | 754  |
| HoundjiSWD14<br>HoundjiSWD14       | Vinasétan Ratheil Houndji, P. Schaus, Laurence A. Wolsey, Y. Deville | The StockingCost Constraint  | Yes | [259] | 2014 | CP 2014                | 16    | 5        | 7       | 453  | 755  |



Table 34: Works from bibtex (Total 12)

| Key                            | Authors  | Title   | LC  | Cite  | Year | Conference<br>/Journal    | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|--------------------------------|--|---|-----|-------|------|---------------------------|-------|-------------|------------|------|------|
| SchausHMCMD11<br>SchausHMCMD11 | P. Schaus, Pascal Van Hentenryck, J. Monette,<br>C. Coffrin, L. Michel, Y. Deville | Solving Steel Mill Slab Problems with<br>constraint-based techniques: CP, LNS, and CBLs | Yes | [437] | 2011 | Constraints An Int.<br>J. | 23    | 14          | 5          | 1290 | 1482 |

## D.12 Works by Roman Barták

Table 35: Works from bibtex (Total 11)

| Key                        | Authors                               | Title   | LC  | Cite  | Year | Conference<br>/Journal   | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|----------------------------|---------------------------------------|---|-----|-------|------|--|-------|-------------|------------|------|------|
| SvancaraB22<br>SvancaraB22 | J. Svancara, R. Barták                | Tackling Train Routing via Multi-agent Pathfinding<br>and Constraint-based Scheduling                                   | Yes | [469] | 2022 | ICAART 2022  | 8     | 0           | 0          | 563  | 638  |
| JelinekB16 JelinekB16      | J. Jelínek, R. Barták                 | Using Constraint Logic Programming to Schedule<br>Solar Array Operations on the International Space<br>Station          | Yes | [265] | 2016 | PADL 2016  | 10    | 0           | 5          | 455  | 717  |
| BartakV15 BartakV15        | R. Barták, M. Vlk                     | Reactive Recovery from Machine Breakdown in<br>Production Scheduling with Temporal Distance and<br>Resource Constraints | Yes | [48]  | 2015 | ICAART 2015  | 12    | 0           | 0          | 335  | 726  |
| Bartak14 Bartak14          | R. Barták                             | Planning and Scheduling   | No  | [44]  | 2014 | Computing Hand-<br>book, Third Edi-<br>tion: Computer<br>Science and Soft-<br>ware Engineering | null  | 0           | 0          | No   | ??   |
| BartakS11 BartakS11        | R. Barták, Miguel A. Salido           | Constraint satisfaction for planning and scheduling<br>problems   | Yes | [46]  | 2011 | Constraints An Int.<br>J.  | 5     | 17          | 3          | 1165 | 1473 |
| BartakCS10<br>BartakCS10   | R. Barták, O. Cepek, P. Surynek       | Discovering implied constraints in precedence graphs<br>with alternatives   | Yes | [45]  | 2010 | Ann. Oper. Res.  | 31    | 2           | 9          | 1164 | 1486 |
| BartakSR10<br>BartakSR10   | R. Barták, Miguel A. Salido, F. Rossi | New trends in constraint satisfaction, planning, and<br>scheduling: a survey  | Yes | [47]  | 2010 | Knowl. Eng. Rev.   | 31    | 28          | 47         | 1166 | 1487 |
| VilimBC05 VilimBC05        | P. Vilím, R. Barták, O. Cepek         | Extension of $O(n \log n)$ Filtering Algorithms for the<br>Unary Resource Constraint to Optional Activities             | Yes | [517] | 2005 | Constraints An Int.<br>J.  | 23    | 21          | 5          | 1311 | 1517 |
| VilimBC04 VilimBC04        | P. Vilím, R. Barták, O. Cepek         | Unary Resource Constraint with Optional Activities  | Yes | [516] | 2004 | CP 2004  | 15    | 13          | 4          | 591  | 873  |
| Bartak02 Bartak02          | R. Barták                             | Visopt ShopFloor: On the Edge of Planning and<br>Scheduling   | Yes | [43]  | 2002 | CP 2002  | 16    | 6           | 4          | 333  | 883  |
| Bartak02a Bartak02a        | R. Barták                             | Visopt ShopFloor: Going Beyond Traditional<br>Scheduling  | Yes | [42]  | 2002 | ERCIM/CologNet<br>2002   | 15    | 1           | 9          | 334  | 884  |

## D.13 Works by Philippe Laborie

Table 36: Works from bibtex (Total 11)

| Key                            | Authors  | Title  | LC  | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|--------------------------------|--|--|-----|-------|------|------------------------|-------|-------------|------------|------|------|
| LunardiBLRV20<br>LunardiBLRV20 | William T. Lunardi, Ernesto G. Birgin, P.<br>Laborie, Débora P. Ronconi, H. Voos | Mixed Integer linear programming and constraint<br>programming models for the online printing shop<br>scheduling problem | Yes | [343] | 2020 | Comput. Oper.<br>Res.  | 20    | 30          | 18         | 1252 | 1394 |

Table 36: Works from bibtex (Total 11)

| Key                         | Authors   | Title  | LC  | Cite  | Year | Conference /Journal                | Pages | Nr Cites | Nr Refs | b    | c    |
|-----------------------------|---|--|-----|-------|------|------------------------------------|-------|----------|---------|------|------|
| Laborie18a Laborie18a       | P. Laborie  | An Update on the Comparison of MIP, CP and Hybrid Approaches for Mixed Resource Allocation and Scheduling          | Yes | [307] | 2018 | CPAIOR 2018                        | 9     | 18       | 10      | 481  | 689  |
| LaborieRSV18 LaborieRSV18   | P. Laborie, J. Rogerie, P. Shaw, P. Vilím           | IBM ILOG CP optimizer for scheduling - 20+ years of scheduling with constraints at IBM/ILOG                        | Yes | [308] | 2018 | Constraints An Int. J.             | 41    | 148      | 35      | 1240 | 1425 |
| MelgarejoLS15 MelgarejoLS15 | P. Aguiar-Melgarejo, P. Laborie, C. Solnon          | A Time-Dependent No-Overlap Constraint: Application to Urban Delivery Problems                                     | Yes | [8]   | 2015 | CPAIOR 2015                        | 17    | 14       | 17      | 509  | 737  |
| VilimLS15 VilimLS15         | P. Vilím, P. Laborie, P. Shaw                       | Failure-Directed Search for Constraint-Based Scheduling  | Yes | [518] | 2015 | CPAIOR 2015                        | 17    | 31       | 19      | 592  | 742  |
| BidotVLB09 BidotVLB09       | J. Bidot, T. Vidal, P. Laborie, J. Christopher Beck | A theoretic and practical framework for scheduling in a stochastic environment                                     | Yes | [82]  | 2009 | J. Sched.                          | 30    | 58       | 20      | 1181 | 1494 |
| Laborie09 Laborie09         | P. Laborie  | IBM ILOG CP Optimizer for Detailed Scheduling Illustrated on Three Problems  | Yes | [306] | 2009 | CPAIOR 2009                        | 15    | 53       | 2       | 480  | 810  |
| BaptisteLPN06 BaptisteLPN06 | P. Baptiste, P. Laborie, Claude Le Pape, W. Nuijten | Constraint-Based Scheduling and Planning   | No  | [36]  | 2006 | Handbook of Constraint Programming | 39    | 30       | 25      | No   | ??   |
| GodardLN05 GodardLN05       | D. Godard, P. Laborie, W. Nuijten                   | Randomized Large Neighborhood Search for Cumulative Scheduling   | Yes | [201] | 2005 | ICAPS 2005                         | 9     | 0        | 0       | 422  | 854  |
| Laborie03 Laborie03         | P. Laborie  | Algorithms for propagating resource constraints in AI planning and scheduling: Existing approaches and new results | Yes | [305] | 2003 | Artificial Intelligence            | 38    | 128      | 10      | 1239 | 1523 |
| FocacciLN00 FocacciLN00     | F. Focacci, P. Laborie, W. Nuijten                  | Solving Scheduling Problems with Setup Times and Alternative Resources   | Yes | [175] | 2000 | AIPS 2000                          | 10    | 0        | 0       | 401  | 897  |

## D.14 Works by Petr Vilím

Table 37: Works from bibtex (Total 11)

| Key                       | Authors                                   | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|---------------------------|---|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| LaborieRSV18 LaborieRSV18 | P. Laborie, J. Rogerie, P. Shaw, P. Vilím | IBM ILOG CP optimizer for scheduling - 20+ years of scheduling with constraints at IBM/ILOG              | Yes | [308] | 2018 | Constraints An Int. J. | 41    | 148      | 35      | 1240 | 1425 |
| VilimLS15 VilimLS15       | P. Vilím, P. Laborie, P. Shaw             | Failure-Directed Search for Constraint-Based Scheduling  | Yes | [518] | 2015 | CPAIOR 2015            | 17    | 31       | 19      | 592  | 742  |
| Vilim11 Vilim11           | P. Vilím                                  | Timetable Edge Finding Filtering Algorithm for Discrete Cumulative Resources                             | Yes | [515] | 2011 | CPAIOR 2011            | 16    | 28       | 6       | 590  | 795  |
| Vilim09 Vilim09           | P. Vilím                                  | Edge Finding Filtering Algorithm for Discrete Cumulative Resources in $O(kn \log n)$                     | Yes | [513] | 2009 | CP 2009                | 15    | 25       | 4       | 588  | 815  |
| Vilim09a Vilim09a         | P. Vilím                                  | Max Energy Filtering Algorithm for Discrete Cumulative Resources   | Yes | [514] | 2009 | CPAIOR 2009            | 15    | 13       | 4       | 589  | 816  |
| Vilim05 Vilim05           | P. Vilím                                  | Computing Explanations for the Unary Resource Constraint   | Yes | [512] | 2005 | CPAIOR 2005            | 14    | 5        | 8       | 587  | 861  |
| VilimBC05 VilimBC05       | P. Vilím, R. Barták, O. Cepek             | Extension of $O(n \log n)$ Filtering Algorithms for the Unary Resource Constraint to Optional Activities | Yes | [517] | 2005 | Constraints An Int. J. | 23    | 21       | 5       | 1311 | 1517 |
| Vilim04 Vilim04           | P. Vilím                                  | $O(n \log n)$ Filtering Algorithms for Unary Resource Constraint   | Yes | [511] | 2004 | CPAIOR 2004            | 13    | 22       | 5       | 586  | 872  |
| VilimBC04 VilimBC04       | P. Vilím, R. Barták, O. Cepek             | Unary Resource Constraint with Optional Activities   | Yes | [516] | 2004 | CP 2004                | 15    | 13       | 4       | 591  | 873  |
| Vilim03 Vilim03           | P. Vilím                                  | Computing Explanations for Global Scheduling Constraints   | Yes | [510] | 2003 | CP 2003                | 1     | 1        | 1       | 585  | 881  |

Table 37: Works from bibtex (Total 11)

| Key             | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|-----------------|----------|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| Vilim02 Vilim02 | P. Vilím | Batch Processing with Sequence Dependent Setup Times | Yes | [509] | 2002 | CP 2002             | 1     | 6        | 1       | 584 | 891 |

## D.15 Works by Luca Benini

Table 38: Works from bibtex (Total 10)

| Key                              | Authors  | Title  | LC  | Cite  | Year | Conference /Journal                                   | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|--|--|-----|-------|------|---|-------|----------|---------|------|------|
| BorghesiBLMB18<br>BorghesiBLMB18 | A. Borghesi, A. Bartolini, M. Lombardi, M. Milano, L. Benini | Scheduling-based power capping in high performance computing systems   | Yes | [102] | 2018 | Sustain. Comput. Informatics Syst.                    | 13    | 11       | 22      | 1186 | 1416 |
| BridiBLMB16<br>BridiBLMB16       | T. Bridi, A. Bartolini, M. Lombardi, M. Milano, L. Benini    | A Constraint Programming Scheduler for Heterogeneous High-Performance Computing Machines                                     | Yes | [107] | 2016 | IEEE Trans. Parallel Distributed Syst.                | 14    | 17       | 22      | 1188 | 1436 |
| BridiLBBM16<br>BridiLBBM16       | T. Bridi, M. Lombardi, A. Bartolini, L. Benini, M. Milano    | DARDIS: Distributed And Randomized DIspatching and Scheduling  | Yes | [108] | 2016 | ECAI 2016   | 2     | 0        | 0       | 366  | 711  |
| BonfiettiLBM14<br>BonfiettiLBM14 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano              | CROSS cyclic resource-constrained scheduling solver  | Yes | [96]  | 2014 | Artif. Intell.  | 28    | 8        | 15      | 1185 | 1455 |
| BonfiettiLBM12<br>BonfiettiLBM12 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano              | Global Cyclic Cumulative Constraint  | Yes | [95]  | 2012 | CPAIOR 2012   | 16    | 2        | 11      | 359  | 772  |
| BeniniLMR11<br>BeniniLMR11       | L. Benini, M. Lombardi, M. Milano, M. Ruggiero               | Optimal resource allocation and scheduling for the CELL BE platform  | Yes | [78]  | 2011 | Ann. Oper. Res.                                       | 27    | 18       | 16      | 1179 | 1476 |
| BonfiettiLBM11<br>BonfiettiLBM11 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano              | A Constraint Based Approach to Cyclic RCPSP  | Yes | [94]  | 2011 | CP 2011   | 15    | 3        | 14      | 358  | 785  |
| LombardiBMB11<br>LombardiBMB11   | M. Lombardi, A. Bonfietti, M. Milano, L. Benini              | Precedence Constraint Posting for Cyclic Scheduling Problems   | Yes | [332] | 2011 | CPAIOR 2011   | 17    | 1        | 13      | 497  | 794  |
| RuggieroBBMA09<br>RuggieroBBMA09 | M. Ruggiero, D. Bertozzi, L. Benini, M. Milano, A. Andrei    | Reducing the Abstraction and Optimality Gaps in the Allocation and Scheduling for Variable Voltage/Frequency MPSoC Platforms | Yes | [432] | 2009 | IEEE Trans. Comput. Aided Des. Integr. Circuits Syst. | 14    | 9        | 27      | 1286 | 1499 |
| BeniniBGM06<br>BeniniBGM06       | L. Benini, D. Bertozzi, A. Guerri, M. Milano                 | Allocation, Scheduling and Voltage Scaling on Energy Aware MPSoCs  | Yes | [77]  | 2006 | CPAIOR 2006   | 15    | 18       | 10      | 349  | 839  |

## D.16 Works by Alessio Bonfietti

Table 39: Works from bibtex (Total 10)

| Key                              | Authors   | Title   | LC  | Cite  | Year | Conference /Journal      | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|---|---|-----|-------|------|--------------------------|-------|----------|---------|------|------|
| Bonfietti16 Bonfietti16          | A. Bonfietti                                      | A constraint programming scheduling solver for the MPOpt programming environment      | Yes | [93]  | 2016 | Intelligenza Artificiale | 13    | 0        | 19      | 1184 | 1435 |
| BonfiettiZLM16<br>BonfiettiZLM16 | A. Bonfietti, A. Zanarini, M. Lombardi, M. Milano | The Multirate Resource Constraint   | Yes | [100] | 2016 | CP 2016                  | 17    | 0        | 11      | 363  | 709  |
| LombardiBM15<br>LombardiBM15     | M. Lombardi, A. Bonfietti, M. Milano              | Deterministic Estimation of the Expected Makespan of a POS Under Duration Uncertainty | Yes | [331] | 2015 | CP 2015                  | 16    | 0        | 8       | 496  | 736  |

Table 39: Works from bibtex (Total 10)

| Key                              | Authors   | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|---|---|-----|-------|------|---------------------|-------|----------|---------|------|------|
| BonfiettiLBM14<br>BonfiettiLBM14 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano | CROSS cyclic resource-constrained scheduling solver                           | Yes | [96]  | 2014 | Artif. Intell.      | 28    | 8        | 15      | 1185 | 1455 |
| BonfiettiLM14<br>BonfiettiLM14   | A. Bonfietti, M. Lombardi, M. Milano            | Disregarding Duration Uncertainty in Partial Order Schedules? Yes, We Can!    | Yes | [98]  | 2014 | CPAIOR 2014         | 16    | 3        | 12      | 361  | 748  |
| BonfiettiLM13<br>BonfiettiLM13   | A. Bonfietti, M. Lombardi, M. Milano            | De-Cycling Cyclic Scheduling Problems   | Yes | [97]  | 2013 | ICAPS 2013          | 5     | 0        | 0       | 360  | 759  |
| BonfiettiLBM12<br>BonfiettiLBM12 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano | Global Cyclic Cumulative Constraint   | Yes | [95]  | 2012 | CPAIOR 2012         | 16    | 2        | 11      | 359  | 772  |
| BonfiettiM12<br>BonfiettiM12     | A. Bonfietti, M. Milano                         | A Constraint-based Approach to Cyclic Resource-Constrained Scheduling Problem | Yes | [99]  | 2012 | DC SIAAI 2012       | 3     | 0        | 0       | 362  | 773  |
| BonfiettiLBM11<br>BonfiettiLBM11 | A. Bonfietti, M. Lombardi, L. Benini, M. Milano | A Constraint Based Approach to Cyclic RCPSP                                   | Yes | [94]  | 2011 | CP 2011             | 15    | 3        | 14      | 358  | 785  |
| LombardiBMB11<br>LombardiBMB11   | M. Lombardi, A. Bonfietti, M. Milano, L. Benini | Precedence Constraint Posting for Cyclic Scheduling Problems                  | Yes | [332] | 2011 | CPAIOR 2011         | 17    | 1        | 13      | 497  | 794  |

## D.17 Works by Pascal Van Hentenryck

Table 40: Works from bibtex (Total 10)

| Key                            | Authors   | Title  | LC  | Cite  | Year | Conference /Journal          | Pages | Nr Cites | Nr Refs | b    | c    |
|--------------------------------|---|--|-----|-------|------|------------------------------|-------|----------|---------|------|------|
| FontaineMH16<br>FontaineMH16   | D. Fontaine, Laurent D. Michel, Pascal Van Hentenryck                           | Parallel Composition of Scheduling Solvers   | Yes | [176] | 2016 | CPAIOR 2016                  | 11    | 3        | 0       | 402  | 713  |
| EvenSH15 EvenSH15              | C. Even, A. Schutt, Pascal Van Hentenryck                                       | A Constraint Programming Approach for Non-preemptive Evacuation Scheduling           | Yes | [166] | 2015 | CP 2015                      | 18    | 3        | 12      | 400  | 730  |
| EvenSH15a EvenSH15a            | C. Even, A. Schutt, Pascal Van Hentenryck                                       | A Constraint Programming Approach for Non-Preemptive Evacuation Scheduling           | Yes | [167] | 2015 | CoRR                         | 16    | 0        | 0       | 1198 | 1445 |
| SchausHMCMD11<br>SchausHMCMD11 | P. Schaus, Pascal Van Hentenryck, J. Monette, C. Coffrin, L. Michel, Y. Deville | Solving Steel Mill Slab Problems with constraint-based techniques: CP, LNS, and CBLS | Yes | [437] | 2011 | Constraints An Int. J.       | 23    | 14       | 5       | 1290 | 1482 |
| MonetteDH09<br>MonetteDH09     | J. Monette, Y. Deville, Pascal Van Hentenryck                                   | Just-In-Time Scheduling with Constraint Programming                                  | Yes | [366] | 2009 | ICAPS 2009                   | 8     | 0        | 0       | 513  | 812  |
| DoomsH08 DoomsH08              | G. Dooms, Pascal Van Hentenryck   | Gap Reduction Techniques for Online Stochastic Project Scheduling                    | Yes | [157] | 2008 | CPAIOR 2008                  | 16    | 1        | 2       | 393  | 819  |
| HentenryckM08<br>HentenryckM08 | Pascal Van Hentenryck, L. Michel  | The Steel Mill Slab Design Problem Revisited   | Yes | [244] | 2008 | CPAIOR 2008                  | 5     | 13       | 3       | 444  | 820  |
| MercierH08 MercierH08          | L. Mercier, Pascal Van Hentenryck   | Edge Finding for Cumulative Scheduling   | No  | [361] | 2008 | INFORMS Journal on Computing | null  | 32       | 5       | No   | 1506 |
| HentenryckM04<br>HentenryckM04 | Pascal Van Hentenryck, L. Michel  | Scheduling Abstractions for Local Search   | Yes | [243] | 2004 | CPAIOR 2004                  | 16    | 12       | 14      | 443  | 866  |
| DincbasSH90<br>DincbasSH90     | M. Dincbas, H. Simonis, Pascal Van Hentenryck                                   | Solving Large Combinatorial Problems in Logic Programming                            | Yes | [156] | 1990 | J. Log. Program.             | 19    | 86       | 9       | 1195 | 1563 |

## D.18 Works by Philippe Baptiste

Table 41: Works from bibtex (Total 9)

| Key                              | Authors   | Title  | LC  | Cite  | Year | Conference /Journal                | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|---|--|-----|-------|------|------------------------------------|-------|----------|---------|------|------|
| BaptisteB18<br>BaptisteB18       | P. Baptiste, N. Bonifas                             | Redundant cumulative constraints to compute preemptive bounds  | Yes | [35]  | 2018 | Discret. Math. Appl.               | 10    | 3        | 13      | 1162 | 1415 |
| Baptiste09 Baptiste09            | P. Baptiste   | Constraint-Based Schedulers, Do They Really Work?  | Yes | [34]  | 2009 | CP 2009                            | 1     | 0        | 0       | 329  | 808  |
| BaptisteLPN06<br>BaptisteLPN06   | P. Baptiste, P. Laborie, Claude Le Pape, W. Nuijten | Constraint-Based Scheduling and Planning   | No  | [36]  | 2006 | Handbook of Constraint Programming | 39    | 30       | 25      | No   | ??   |
| ArtiouchineB05<br>ArtiouchineB05 | K. Artiouchine, P. Baptiste                         | Inter-distance Constraint: An Extension of the All-Different Constraint for Scheduling Equal Length Jobs                     | Yes | [24]  | 2005 | CP 2005                            | 15    | 3        | 11      | 324  | 846  |
| BaptistePN01<br>BaptistePN01     | P. Baptiste, Claude Le Pape, W. Nuijten             | Constraint-Based Scheduling  | No  | [39]  | 2001 | Book                               | null  | 296      | 0       | No   | ??   |
| BaptisteP00<br>BaptisteP00       | P. Baptiste, Claude Le Pape                         | Constraint Propagation and Decomposition Techniques for Highly Disjunctive and Highly Cumulative Project Scheduling Problems | Yes | [38]  | 2000 | Constraints An Int. J.             | 21    | 46       | 0       | 1163 | 1533 |
| PapaB98 PapaB98                  | Claude Le Pape, P. Baptiste                         | Resource Constraints for Preemptive Job-shop Scheduling  | Yes | [404] | 1998 | Constraints An Int. J.             | 25    | 14       | 0       | 1276 | 1547 |
| BaptisteP97<br>BaptisteP97       | P. Baptiste, Claude Le Pape                         | Constraint Propagation and Decomposition Techniques for Highly Disjunctive and Highly Cumulative Project Scheduling Problems | Yes | [37]  | 1997 | CP 1997                            | 15    | 8        | 10      | 331  | 905  |
| PapeB97 PapeB97                  | Claude Le Pape, P. Baptiste                         | A Constraint Programming Library for Preemptive and Non-Preemptive Scheduling  | No  | [403] | 1997 | PACT 1997                          | 20    | 0        | 0       | No   | 909  |

## D.19 Works by Nysret Musliu

Table 42: Works from bibtex (Total 9)

| Key                                  | Authors  | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|--------------------------------------|--|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| LacknerMMWW23<br>LacknerMMWW23       | M. Lackner, C. Mrkvicka, N. Musliu, D. Walkiewicz, F. Winter             | Exact methods for the Oven Scheduling Problem  | Yes | [310] | 2023 | Constraints An Int. J. | 42    | 0        | 32      | 1241 | 1351 |
| WinterMMW22<br>WinterMMW22           | F. Winter, S. Meiswinkel, N. Musliu, D. Walkiewicz                       | Modeling and Solving Parallel Machine Scheduling with Contamination Constraints in the Agricultural Industry | Yes | [531] | 2022 | CP 2022                | 18    | 0        | 0       | 597  | 641  |
| GeibingerKKMMW21<br>GeibingerKKMMW21 | T. Geibinger, L. Kletzander, M. Krainz, F. Mischek, N. Musliu, F. Winter | Physician Scheduling During a Pandemic   | Yes | [192] | 2021 | CPAIOR 2021            | 10    | 0        | 6       | 414  | 649  |
| GeibingerMM21<br>GeibingerMM21       | T. Geibinger, F. Mischek, N. Musliu                                      | Constraint Logic Programming for Real-World Test Laboratory Scheduling                                       | Yes | [195] | 2021 | AAAI 2021              | 9     | 0        | 0       | 416  | 650  |
| LacknerMMWW21<br>LacknerMMWW21       | M. Lackner, C. Mrkvicka, N. Musliu, D. Walkiewicz, F. Winter             | Minimizing Cumulative Batch Processing Time for an Industrial Oven Scheduling Problem                        | Yes | [309] | 2021 | CP 2021                | 18    | 0        | 0       | 482  | 655  |
| GeibingerMM19<br>GeibingerMM19       | T. Geibinger, F. Mischek, N. Musliu                                      | Investigating Constraint Programming for Real World Industrial Test Laboratory Scheduling                    | Yes | [194] | 2019 | CPAIOR 2019            | 16    | 6        | 15      | 415  | 673  |
| abs-1911-04766<br>abs-1911-04766     | T. Geibinger, F. Mischek, N. Musliu                                      | Investigating Constraint Programming and Hybrid Methods for Real World Industrial Test Laboratory Scheduling | Yes | [193] | 2019 | CoRR                   | 16    | 0        | 0       | 1334 | 1414 |
| MusliuSS18 MusliuSS18                | N. Musliu, A. Schutt, Peter J. Stuckey                                   | Solver Independent Rotating Workforce Scheduling   | Yes | [376] | 2018 | CPAIOR 2018            | 17    | 7        | 23      | 520  | 690  |
| KletzanderM17<br>KletzanderM17       | L. Kletzander, N. Musliu   | A Multi-stage Simulated Annealing Algorithm for the Torpedo Scheduling Problem                               | Yes | [284] | 2017 | CPAIOR 2017            | 15    | 1        | 9       | 468  | 702  |

## D.20 Works by Claude-Guy Quimper

Table 43: Works from bibtex (Total 9)

| Key                                    | Authors  | Title   | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|--|--|---|-----|-------|------|------------------------|-------|----------|---------|------|------|
| BoudreaultSLQ22<br>BoudreaultSLQ22     | R. Boudreault, V. Simard, D. Lafond, C. Quimper                        | A Constraint Programming Approach to Ship Refit Project Scheduling  | Yes | [104] | 2022 | CP 2022                | 16    | 0        | 0       | 365  | 629  |
| OuelletQ22 OuelletQ22                  | Y. Ouellet, C. Quimper   | A MinCumulative Resource Constraint   | Yes | [398] | 2022 | CPAIOR 2022            | 17    | 1        | 22      | 529  | 635  |
| Mercier-AubinGQ20<br>Mercier-AubinGQ20 | A. Mercier-Aubin, J. Gaudreault, C. Quimper                            | Leveraging Constraint Scheduling: A Case Study to the Textile Industry  | Yes | [362] | 2020 | CPAIOR 2020            | 13    | 2        | 13      | 510  | 661  |
| FahimiOQ18<br>FahimiOQ18               | H. Fahimi, Y. Ouellet, C. Quimper                                      | Linear-time filtering algorithms for the disjunctive constraint and a quadratic filtering algorithm for the cumulative not-first not-last | Yes | [168] | 2018 | Constraints An Int. J. | 22    | 2        | 20      | 1199 | 1418 |
| KameugneFGOQ18<br>KameugneFGOQ18       | R. Kameugne, Séverine Betmbe Fetgo, V. Gingras, Y. Ouellet, C. Quimper | Horizontally Elastic Not-First/Not-Last Filtering Algorithm for Cumulative Resource Constraint  | Yes | [272] | 2018 | CPAIOR 2018            | 17    | 1        | 12      | 460  | 688  |
| OuelletQ18 OuelletQ18                  | Y. Ouellet, C. Quimper   | A $O(n \log^2 n)$ Checker and $O(n^2 \log n)$ Filtering Algorithm for the Energetic Reasoning   | Yes | [397] | 2018 | CPAIOR 2018            | 18    | 6        | 16      | 528  | 693  |
| GingrasQ16 GingrasQ16                  | V. Gingras, C. Quimper   | Generalizing the Edge-Finder Rule for the Cumulative Constraint   | Yes | [200] | 2016 | IJCAI 2016             | 7     | 0        | 0       | 421  | 715  |
| BessiereHMQW14<br>BessiereHMQW14       | C. Bessiere, E. Hebrard, M. Ménard, C. Quimper, T. Walsh               | Buffered Resource Constraint: Algorithms and Complexity   | Yes | [81]  | 2014 | CPAIOR 2014            | 16    | 1        | 3       | 351  | 746  |
| OuelletQ13 OuelletQ13                  | P. Ouellet, C. Quimper   | Time-Table Extended-Edge-Finding for the Cumulative Constraint  | Yes | [396] | 2013 | CP 2013                | 16    | 12       | 14      | 527  | 767  |

## D.21 Works by Tony T. Tran

Table 44: Works from bibtex (Total 9)

| Key                            | Authors  | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|--------------------------------|--|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| TranPZLDB18<br>TranPZLDB18     | Tony T. Tran, M. Padmanabhan, Peter Yun Zhang, H. Li, Douglas G. Down, J. Christopher Beck                       | Multi-stage resource-aware scheduling for data centers with heterogeneous servers  | Yes | [495] | 2018 | J. Sched.              | 17    | 8        | 26      | 1307 | 1429 |
| TranVNB17<br>TranVNB17         | Tony T. Tran, Tiago Stegun Vaquero, G. Nejat, J. Christopher Beck  | Robots in Retirement Homes: Applying Off-the-Shelf Planning and Scheduling to a Team of Assistive Robots                     | Yes | [497] | 2017 | J. Artif. Intell. Res. | 68    | 12       | 0       | 1308 | 1433 |
| TranVNB17a<br>TranVNB17a       | Tony T. Tran, Tiago Stegun Vaquero, G. Nejat, J. Christopher Beck  | Robots in Retirement Homes: Applying Off-the-Shelf Planning and Scheduling to a Team of Assistive Robots (Extended Abstract) | Yes | [498] | 2017 | IJCAI 2017             | 5     | 1        | 0       | 579  | 707  |
| TranAB16 TranAB16              | Tony T. Tran, A. Araujo, J. Christopher Beck   | Decomposition Methods for the Parallel Machine Scheduling Problem with Setups  | No  | [492] | 2016 | INFORMS J. Comput.     | 13    | 72       | 28      | No   | 1442 |
| TranDRFWOVB16<br>TranDRFWOVB16 | Tony T. Tran, M. Do, Eleanor Gilbert Rieffel, J. Frank, Z. Wang, B. O’Gorman, D. Venturelli, J. Christopher Beck | A Hybrid Quantum-Classical Approach to Solving Scheduling Problems   | Yes | [494] | 2016 | SOCS 2016              | 9     | 3        | 0       | 577  | 724  |
| TranWDRFOVB16<br>TranWDRFOVB16 | Tony T. Tran, Z. Wang, M. Do, Eleanor Gilbert Rieffel, J. Frank, B. O’Gorman, D. Venturelli, J. Christopher Beck | Explorations of Quantum-Classical Approaches to Scheduling a Mars Lander Activity Problem                                    | Yes | [499] | 2016 | AAAI 2016              | 9     | 0        | 0       | 580  | 725  |
| TerekhovTDB14<br>TerekhovTDB14 | D. Terekhov, Tony T. Tran, Douglas G. Down, J. Christopher Beck  | Integrating Queueing Theory and Scheduling for Dynamic Scheduling Problems   | Yes | [480] | 2014 | J. Artif. Intell. Res. | 38    | 12       | 0       | 1303 | 1459 |

Table 44: Works from bibtex (Total 9)

| Key                    | Authors   | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|------------------------|---|---|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| TranTDB13<br>TranTDB13 | Tony T. Tran, D. Terekhov, Douglas G. Down, J. Christopher Beck | Hybrid Queueing Theory and Scheduling Models for Dynamic Environments with Sequence-Dependent Setup Times | Yes | [496] | 2013 | ICAPS 2013          | 9     | 0        | 0       | 578 | 770 |
| TranB12 TranB12        | Tony T. Tran, J. Christopher Beck                               | Logic-based Benders Decomposition for Alternative Resource Scheduling with Sequence Dependent Setups      | Yes | [493] | 2012 | ECAI 2012           | 6     | 0        | 0       | 576 | 782 |

## D.22 Works by Mats Carlsson

Table 45: Works from bibtex (Total 8)

| Key                                | Authors  | Title   | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|--|---|-----|-------|------|------------------------|-------|----------|---------|------|------|
| WessenCS20<br>WessenCS20           | J. Wessén, M. Carlsson, C. Schulte                         | Scheduling of Dual-Arm Multi-tool Assembly Robots and Workspace Layout Optimization             | Yes | [529] | 2020 | CPAIOR 2020            | 10    | 2        | 11      | 596  | 665  |
| MossigeGSMC17<br>MossigeGSMC17     | M. Mossige, A. Gotlieb, H. Spieker, H. Meling, M. Carlsson | Time-Aware Test Case Execution Scheduling for Cyber-Physical Systems                            | Yes | [369] | 2017 | CP 2017                | 18    | 6        | 33      | 514  | 705  |
| LetortCB15 LetortCB15              | A. Letort, M. Carlsson, N. Beldiceanu                      | Synchronized sweep algorithms for scalable scheduling constraints                               | Yes | [318] | 2015 | Constraints An Int. J. | 52    | 2        | 14      | 1243 | 1449 |
| LetortCB13 LetortCB13              | A. Letort, M. Carlsson, N. Beldiceanu                      | A Synchronized Sweep Algorithm for the <i>k-dimensional cumulative</i> Constraint               | Yes | [317] | 2013 | CPAIOR 2013            | 16    | 3        | 10      | 486  | 765  |
| LetortBC12 LetortBC12              | A. Letort, N. Beldiceanu, M. Carlsson                      | A Scalable Sweep Algorithm for the cumulative Constraint  | Yes | [316] | 2012 | CP 2012                | 16    | 18       | 12      | 485  | 777  |
| BeldiceanuCDP11<br>BeldiceanuCDP11 | N. Beldiceanu, M. Carlsson, S. Demassey, E. Poder          | New filtering for the <i>cumulative</i> constraint in the context of non-overlapping rectangles | Yes | [69]  | 2011 | Ann. Oper. Res.        | 24    | 8        | 8       | 1176 | 1475 |
| BeldiceanuCP08<br>BeldiceanuCP08   | N. Beldiceanu, M. Carlsson, E. Poder                       | New Filtering for the cumulative Constraint in the Context of Non-Overlapping Rectangles        | Yes | [70]  | 2008 | CPAIOR 2008            | 15    | 8        | 9       | 345  | 818  |
| BeldiceanuC02<br>BeldiceanuC02     | N. Beldiceanu, M. Carlsson                                 | A New Multi-resource cumulatives Constraint with Negative Heights                               | Yes | [68]  | 2002 | CP 2002                | 17    | 33       | 9       | 344  | 885  |

## D.23 Works by Claude Le Pape

Table 46: Works from bibtex (Total 8)

| Key                            | Authors   | Title  | LC  | Cite | Year | Conference /Journal                | Pages | Nr Cites | Nr Refs | b    | c    |
|--------------------------------|---|--|-----|------|------|------------------------------------|-------|----------|---------|------|------|
| BaptisteLPN06<br>BaptisteLPN06 | P. Baptiste, P. Laborie, Claude Le Pape, W. Nuijten | Constraint-Based Scheduling and Planning   | No  | [36] | 2006 | Handbook of Constraint Programming | 39    | 30       | 25      | No   | ??   |
| BaptistePN01<br>BaptistePN01   | P. Baptiste, Claude Le Pape, W. Nuijten             | Constraint-Based Scheduling  | No  | [39] | 2001 | Book                               | null  | 296      | 0       | No   | ??   |
| BaptisteP00<br>BaptisteP00     | P. Baptiste, Claude Le Pape                         | Constraint Propagation and Decomposition Techniques for Highly Disjunctive and Highly Cumulative Project Scheduling Problems | Yes | [38] | 2000 | Constraints An Int. J.             | 21    | 46       | 0       | 1163 | 1533 |

Table 46: Works from bibtex (Total 8)

| Key                     | Authors                     | Title   | LC  | Cite  | Year | Conference<br>/Journal          | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|-------------------------|-----------------------------|---|-----|-------|------|---------------------------------|-------|-------------|------------|------|------|
| NuijtenP98 NuijtenP98   | W. Nuijten, Claude Le Pape  | Constraint-Based Job Shop Scheduling with \sc Ilog Scheduler  | Yes | [393] | 1998 | J. Heuristics                   | 16    | 42          | 0          | 1272 | 1546 |
| PapaB98 PapaB98         | Claude Le Pape, P. Baptiste | Resource Constraints for Preemptive Job-shop Scheduling   | Yes | [404] | 1998 | Constraints An Int. J.          | 25    | 14          | 0          | 1276 | 1547 |
| BaptisteP97 BaptisteP97 | P. Baptiste, Claude Le Pape | Constraint Propagation and Decomposition Techniques for Highly Disjunctive and Highly Cumulative Project Scheduling Problems  | Yes | [37]  | 1997 | CP 1997                         | 15    | 8           | 10         | 331  | 905  |
| PapeB97 PapeB97         | Claude Le Pape, P. Baptiste | A Constraint Programming Library for Preemptive and Non-Preemptive Scheduling   | No  | [403] | 1997 | PACT 1997                       | 20    | 0           | 0          | No   | 909  |
| Pape94 Pape94           | Claude Le Pape              | Implementation of resource constraints in ILOG SCHEDULE: a library for the development of constraint-based scheduling systems | No  | [402] | 1994 | Intelligent Systems Engineering | 1     | 98          | 0          | No   | 1556 |

## D.24 Works by Helmut Simonis

Table 47: Works from bibtex (Total 8)

| Key                           | Authors  | Title  | LC  | Cite  | Year | Conference<br>/Journal             | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|-------------------------------|--|--|-----|-------|------|------------------------------------|-------|-------------|------------|------|------|
| ArmstrongGOS22 ArmstrongGOS22 | E. Armstrong, M. Garraffa, B. O’Sullivan, H. Simonis | A Two-Phase Hybrid Approach for the Hybrid Flexible Flowshop with Transportation Times | Yes | [19]  | 2022 | CPAIOR 2022                        | 13    | 0           | 14         | 321  | 628  |
| ArmstrongGOS21 ArmstrongGOS21 | E. Armstrong, M. Garraffa, B. O’Sullivan, H. Simonis | The Hybrid Flexible Flowshop with Transportation Times                                 | Yes | [18]  | 2021 | CP 2021                            | 18    | 1           | 0          | 320  | 645  |
| GrimesIOS14 GrimesIOS14       | D. Grimes, G. Ifrim, B. O’Sullivan, H. Simonis       | Analyzing the impact of electricity price forecasting on energy cost-aware scheduling  | Yes | [214] | 2014 | Sustain. Comput. Informatics Syst. | 16    | 6           | 7          | 1211 | 1456 |
| IfrimOS12 IfrimOS12           | G. Ifrim, B. O’Sullivan, H. Simonis                  | Properties of Energy-Price Forecasts for Scheduling                                    | Yes | [261] | 2012 | CP 2012                            | 16    | 6           | 20         | 454  | 776  |
| Simonis07 Simonis07           | H. Simonis   | Models for Global Constraint Applications  | Yes | [461] | 2007 | Constraints An Int. J.             | 30    | 10          | 17         | 1298 | 1511 |
| Simonis95 Simonis95           | H. Simonis   | The CHIP System and Its Applications   | Yes | [460] | 1995 | CP 1995                            | 4     | 7           | 3          | 559  | 915  |
| SimonisC95 SimonisC95         | H. Simonis, T. Cornelissens                          | Modelling Producer/Consumer Constraints  | Yes | [462] | 1995 | CP 1995                            | 14    | 17          | 8          | 560  | 916  |
| DincbasSH90 DincbasSH90       | M. Dincbas, H. Simonis, Pascal Van Hentenryck        | Solving Large Combinatorial Problems in Logic Programming                              | Yes | [156] | 1990 | J. Log. Program.                   | 19    | 86          | 9          | 1195 | 1563 |

## D.25 Works by Mark Wallace

Table 48: Works from bibtex (Total 8)

| Key                   | Authors  | Title   | LC  | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|-----------------------|--|---|-----|-------|------|------------------------|-------|-------------|------------|------|------|
| WallaceY20 WallaceY20 | M. Wallace, N. Yorke-Smith                         | A new constraint programming model and solving for the cyclic hoist scheduling problem        | Yes | [523] | 2020 | Constraints An Int. J. | 19    | 5           | 18         | 1314 | 1401 |
| He0GLW18 He0GLW18     | S. He, M. Wallace, G. Gange, A. Liebman, C. Wilson | A Fast and Scalable Algorithm for Scheduling Large Numbers of Devices Under Real-Time Pricing | Yes | [229] | 2018 | CP 2018                | 18    | 6           | 26         | 436  | 686  |



Table 48: Works from bibtex (Total 8)

| Key                              | Authors  | Title   | LC  | Cite  | Year | Conference /Journal         | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|--|---|-----|-------|------|-----------------------------|-------|----------|---------|------|------|
| ThiruvadyWGS14<br>ThiruvadyWGS14 | Dhananjay R. Thiruvady, M. Wallace, H. Gu, A. Schutt | A Lagrangian relaxation and ACO hybrid for resource constrained project scheduling with discounted cash flows | Yes | [484] | 2014 | J. Heuristics               | 34    | 19       | 18      | 1304 | 1460 |
| SchuttFSW09<br>SchuttFSW09       | A. Schutt, T. Feydy, Peter J. Stuckey, M. Wallace    | Why Cumulative Decomposition Is Not as Bad as It Sounds   | Yes | [442] | 2009 | CP 2009                     | 16    | 34       | 11      | 551  | 813  |
| SakkoutW00<br>SakkoutW00         | Hani El Sakkout, M. Wallace                          | Probe Backtrack Search for Minimal Perturbation in Dynamic Scheduling   | Yes | [436] | 2000 | Constraints An Int. J.      | 30    | 73       | 0       | 1289 | 1538 |
| RodosekW98<br>RodosekW98         | R. Rodosek, M. Wallace                               | A Generic Model and Hybrid Algorithm for Hoist Scheduling Problems  | Yes | [428] | 1998 | CP 1998                     | 15    | 19       | 10      | 545  | 903  |
| Wallace96<br>Wallace96           | M. Wallace   | Practical Applications of Constraint Programming  | Yes | [522] | 1996 | Constraints An Int. J.      | 30    | 87       | 55      | 1313 | 1553 |
| Wallace94<br>Wallace94           | M. Wallace   | Applying Constraints for Scheduling   | No  | [521] | 1994 | Constraint Programming 1994 | 19    | 0        | 0       | No   | 920  |

## D.26 Works by Thibaut Feydy

Table 49: Works from bibtex (Total 7)

| Key                            | Authors  | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|--------------------------------|--|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| YoungFS17<br>YoungFS17         | Kenneth D. Young, T. Feydy, A. Schutt                  | Constraint Programming Applied to the Multi-Skill Project Scheduling Problem                                       | Yes | [539] | 2017 | CP 2017                | 10    | 6        | 21      | 603  | 708  |
| SchuttFS13<br>SchuttFS13       | A. Schutt, T. Feydy, Peter J. Stuckey                  | Scheduling Optional Tasks with Explanation   | Yes | [441] | 2013 | CP 2013                | 17    | 10       | 20      | 549  | 768  |
| SchuttFS13a<br>SchuttFS13a     | A. Schutt, T. Feydy, Peter J. Stuckey                  | Explaining Time-Table-Edge-Finding Propagation for the Cumulative Resource Constraint                              | Yes | [440] | 2013 | CPAIOR 2013            | 17    | 20       | 27      | 550  | 769  |
| SchuttFSW13<br>SchuttFSW13     | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace | Solving RCPSP/max by lazy clause generation  | Yes | [445] | 2013 | J. Sched.              | 17    | 43       | 23      | 1293 | 1465 |
| SchuttFSW11<br>SchuttFSW11     | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace | Explaining the cumulative propagator   | Yes | [444] | 2011 | Constraints An Int. J. | 33    | 57       | 23      | 1292 | 1483 |
| abs-1009-0347<br>abs-1009-0347 | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. Wallace | Solving the Resource Constrained Project Scheduling Problem with Generalized Precedences by Lazy Clause Generation | Yes | [443] | 2010 | CoRR                   | 37    | 0        | 0       | 1330 | 1493 |
| SchuttFSW09<br>SchuttFSW09     | A. Schutt, T. Feydy, Peter J. Stuckey, M. Wallace      | Why Cumulative Decomposition Is Not as Bad as It Sounds  | Yes | [442] | 2009 | CP 2009                | 16    | 34       | 11      | 551  | 813  |

## D.27 Works by Zdenek Hanzálek

Table 50: Works from bibtex (Total 7)

| Key  | Authors   | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|--|---|---|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| Mehdizadeh-Somarin23<br>Mehdizadeh-Somarin23 | Z. Mehdizadeh-Somarin, R. Tavakkoli-Moghaddam, M. Rohaninejad, Z. Hanzálek, Behdin Vahedi Nouri | A Constraint Programming Model for a Reconfigurable Job Shop Scheduling Problem with Machine Availability | Yes | [357] | 2023 | APMS 2023           | 14    | 0        | 0       | 508 | 620 |

Table 50: Works from bibtex (Total 7)

| Key                              | Authors  | Title  | LC  | Cite  | Year | Conference /Journal    | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|--|--|-----|-------|------|------------------------|-------|----------|---------|------|------|
| abs-2305-19888<br>abs-2305-19888 | V. Heinz, A. Novák, M. Vlk, Z. Hanzálek              | Constraint Programming and Constructive Heuristics for Parallel Machine Scheduling with Sequence-Dependent Setups and Common Servers | Yes | [241] | 2023 | CoRR                   | 42    | 0        | 0       | 1337 | 1357 |
| HeinzNVH22<br>HeinzNVH22         | V. Heinz, A. Novák, M. Vlk, Z. Hanzálek              | Constraint Programming and constructive heuristics for parallel machine scheduling with sequence-dependent setups and common servers | Yes | [240] | 2022 | Comput. Ind. Eng.      | 16    | 5        | 25      | 1219 | 1367 |
| VlkHT21 VlkHT21                  | M. Vlk, Z. Hanzálek, S. Tang                         | Constraint programming approaches to joint routing and scheduling in time-sensitive networks   | Yes | [520] | 2021 | Comput. Ind. Eng.      | 14    | 7        | 22      | 1312 | 1385 |
| BenediktMH20<br>BenediktMH20     | O. Benedikt, I. Módos, Z. Hanzálek                   | Power of pre-processing: production scheduling with variable energy pricing and power-saving states                                  | Yes | [75]  | 2020 | Constraints An Int. J. | 19    | 1        | 18      | 1178 | 1391 |
| BenediktSMVH18<br>BenediktSMVH18 | O. Benedikt, P. Sucha, I. Módos, M. Vlk, Z. Hanzálek | Energy-Aware Production Scheduling with Power-Saving Modes   | Yes | [76]  | 2018 | CPAIOR 2018            | 10    | 2        | 12      | 348  | 683  |
| KelbelH11 KelbelH11              | J. Kelbel, Z. Hanzálek                               | Solving production scheduling with earliness/tardiness penalties by constraint programming   | Yes | [278] | 2011 | J. Intell. Manuf.      | 10    | 12       | 14      | 1230 | 1479 |

## D.28 Works by András Kovács

Table 51: Works from bibtex (Total 7)

| Key                        | Authors                               | Title   | LC  | Cite  | Year | Conference /Journal       | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------|---------------------------------------|---|-----|-------|------|---------------------------|-------|----------|---------|------|------|
| KovacsB11 KovacsB11        | A. Kovács, J. Christopher Beck        | A global constraint for total weighted completion time for unary resources              | Yes | [292] | 2011 | Constraints An Int. J.    | 24    | 4        | 26      | 1235 | 1480 |
| KovacsK11 KovacsK11        | A. Kovács, T. Kis                     | Constraint programming approach to a bilevel scheduling problem                         | Yes | [294] | 2011 | Constraints An Int. J.    | 24    | 3        | 24      | 1236 | 1481 |
| KovacsB08 KovacsB08        | A. Kovács, J. Christopher Beck        | A global constraint for total weighted completion time for cumulative resources         | Yes | [291] | 2008 | Eng. Appl. Artif. Intell. | 7     | 5        | 14      | 1234 | 1503 |
| KovacsB07 KovacsB07        | A. Kovács, J. Christopher Beck        | A Global Constraint for Total Weighted Completion Time                                  | Yes | [290] | 2007 | CPAIOR 2007               | 15    | 2        | 12      | 471  | 832  |
| KovacsV06 KovacsV06        | A. Kovács, J. Váncza                  | Progressive Solutions: A Simple but Efficient Dominance Rule for Practical RCPSP        | Yes | [296] | 2006 | CPAIOR 2006               | 13    | 2        | 7       | 475  | 842  |
| KovacsEKV05<br>KovacsEKV05 | A. Kovács, P. Egri, T. Kis, J. Váncza | Proterv-II: An Integrated Production Planning and Scheduling System                     | Yes | [293] | 2005 | CP 2005                   | 1     | 2        | 3       | 472  | 857  |
| KovacsV04 KovacsV04        | A. Kovács, J. Váncza                  | Completable Partial Solutions in Constraint Programming and Constraint-Based Scheduling | Yes | [295] | 2004 | CP 2004                   | 15    | 3        | 12      | 474  | 868  |

## D.29 Works by Gabriela P. Henning

Table 52: Works from bibtex (Total 7)

| Key                          | Authors  | Title  | LC  | Cite  | Year | Conference<br>/Journal                  | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|------------------------------|--|--|-----|-------|------|---|-------|-------------|------------|------|------|
| NovaraNH16<br>NovaraNH16     | Franco M. Novara, Juan M. Novas, Gabriela P. Henning | A novel constraint programming model for large-scale scheduling problems in multiproduct multistage batch plants: Limited resources and campaign-based operation | Yes | [387] | 2016 | Comput. Chem. Eng.                      | 17    | 18          | 31         | 1267 | 1441 |
| NovasH14 NovasH14            | Juan M. Novas, Gabriela P. Henning                   | Integrated scheduling of resource-constrained flexible manufacturing systems using constraint programming  | Yes | [391] | 2014 | Expert Syst. Appl.                      | 14    | 35          | 26         | 1271 | 1458 |
| NovasH12 NovasH12            | Juan M. Novas, Gabriela P. Henning                   | A comprehensive constraint programming approach for the rolling horizon-based scheduling of automated wet-etch stations  | Yes | [390] | 2012 | Comput. Chem. Eng.                      | 17    | 17          | 15         | 1270 | 1470 |
| NovasH10 NovasH10            | Juan M. Novas, Gabriela P. Henning                   | Reactive scheduling framework based on domain knowledge and constraint programming   | Yes | [389] | 2010 | Comput. Chem. Eng. Appl. Artif. Intell. | 20    | 48          | 19         | 1269 | 1491 |
| ZeballosQH10<br>ZeballosQH10 | L. Zeballos, O. Quiroga, Gabriela P. Henning         | A constraint programming model for the scheduling of flexible manufacturing systems with machine and tool limitations  | Yes | [547] | 2010 | Eng. Appl. Artif. Intell.               | 20    | 33          | 28         | 1324 | 1492 |
| QuirogaZH05<br>QuirogaZH05   | O. Quiroga, L. Zeballos, Gabriela P. Henning         | A Constraint Programming Approach to Tool Allocation and Resource Scheduling in FMS  | Yes | [425] | 2005 | ICRA 2005                               | 6     | 2           | 7          | 542  | 859  |
| ZeballosH05<br>ZeballosH05   | L. Zeballos, Gabriela P. Henning                     | A Constraint Programming Approach to FMS Scheduling. Consideration of Storage and Transportation Resources   | Yes | [546] | 2005 | Inteligencia Artif.                     | 10    | 0           | 0          | 1323 | 1518 |

## D.30 Works by Stefan Heinz

Table 53: Works from bibtex (Total 6)

| Key                            | Authors  | Title   | LC  | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|--------------------------------|--|---|-----|-------|------|------------------------|-------|-------------|------------|------|------|
| HeinzKB13 HeinzKB13            | S. Heinz, W. Ku, J. Christopher Beck                                 | Recent Improvements Using Constraint Integer Programming for Resource Allocation and Scheduling | Yes | [236] | 2013 | CPAIOR 2013            | 16    | 9           | 15         | 441  | 763  |
| HeinzSB13 HeinzSB13            | S. Heinz, J. Schulz, J. Christopher Beck                             | Using dual presolving reductions to reformulate cumulative constraints                          | Yes | [239] | 2013 | Constraints An Int. J. | 36    | 7           | 31         | 1220 | 1463 |
| HeinzB12 HeinzB12              | S. Heinz, J. Christopher Beck  | Reconsidering Mixed Integer Programming and MIP-Based Hybrids for Scheduling                    | Yes | [235] | 2012 | CPAIOR 2012            | 17    | 8           | 21         | 440  | 775  |
| HeinzSSW12<br>HeinzSSW12       | S. Heinz, T. Schlechte, R. Stephan, M. Winkler                       | Solving steel mill slab design problems   | Yes | [237] | 2012 | Constraints An Int. J. | 12    | 10          | 9          | 1221 | 1466 |
| HeinzS11 HeinzS11              | S. Heinz, J. Schulz  | Explanations for the Cumulative Constraint: An Experimental Study                               | Yes | [238] | 2011 | SEA 2011               | 10    | 5           | 12         | 442  | 790  |
| BertholdHLS10<br>BertholdHLS10 | T. Berthold, S. Heinz, Marco E. Lübbecke, Rolf H. Möhring, J. Schulz | A Constraint Integer Programming Approach for Resource-Constrained Project Scheduling           | Yes | [80]  | 2010 | CPAIOR 2010            | 5     | 28          | 10         | 350  | 798  |

## D.31 Works by Wim Nuijten

Table 54: Works from bibtex (Total 6)

| Key                            | Authors   | Title  | LC  | Cite  | Year | Conference /Journal                | Pages | Nr Cites | Nr Refs | b    | c    |
|--------------------------------|---|--|-----|-------|------|------------------------------------|-------|----------|---------|------|------|
| BaptisteLPN06<br>BaptisteLPN06 | P. Baptiste, P. Laborie, Claude Le Pape, W. Nuijten | Constraint-Based Scheduling and Planning                               | No  | [36]  | 2006 | Handbook of Constraint Programming | 39    | 30       | 25      | No   | ??   |
| GodardLN05<br>GodardLN05       | D. Godard, P. Laborie, W. Nuijten                   | Randomized Large Neighborhood Search for Cumulative Scheduling         | Yes | [201] | 2005 | ICAPS 2005                         | 9     | 0        | 0       | 422  | 854  |
| BaptistePN01<br>BaptistePN01   | P. Baptiste, Claude Le Pape, W. Nuijten             | Constraint-Based Scheduling  | No  | [39]  | 2001 | Book                               | null  | 296      | 0       | No   | ??   |
| FocacciLN00<br>FocacciLN00     | F. Focacci, P. Laborie, W. Nuijten                  | Solving Scheduling Problems with Setup Times and Alternative Resources | Yes | [175] | 2000 | AIPS 2000                          | 10    | 0        | 0       | 401  | 897  |
| SourdN00 SourdN00              | F. Sourd, W. Nuijten                                | Multiple-Machine Lower Bounds for Shop-Scheduling Problems             | Yes | [463] | 2000 | INFORMS J. Comput.                 | 12    | 7        | 14      | 1299 | 1540 |
| NuijtenP98 NuijtenP98          | W. Nuijten, Claude Le Pape                          | Constraint-Based Job Shop Scheduling with \sc Ilog Scheduler           | Yes | [393] | 1998 | J. Heuristics                      | 16    | 42       | 0       | 1272 | 1546 |

## D.32 Works by Emmanuel Poder

Table 55: Works from bibtex (Total 6)

| Key                                | Authors  | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|--|---|-----|-------|------|---------------------|-------|----------|---------|------|------|
| BeldiceanuCDP11<br>BeldiceanuCDP11 | N. Beldiceanu, M. Carlsson, S. Demasse, E. Poder | New filtering for the <i>cumulative</i> constraint in the context of non-overlapping rectangles                         | Yes | [69]  | 2011 | Ann. Oper. Res.     | 24    | 8        | 8       | 1176 | 1475 |
| abs-0907-0939<br>abs-0907-0939     | T. Petit, E. Poder                               | The Soft Cumulative Constraint  | Yes | [410] | 2009 | CoRR                | 12    | 0        | 0       | 1329 | 1501 |
| BeldiceanuCP08<br>BeldiceanuCP08   | N. Beldiceanu, M. Carlsson, E. Poder             | New Filtering for the cumulative Constraint in the Context of Non-Overlapping Rectangles                                | Yes | [70]  | 2008 | CPAIOR 2008         | 15    | 8        | 9       | 345  | 818  |
| PoderB08 PoderB08                  | E. Poder, N. Beldiceanu                          | Filtering for a Continuous Multi-Resources cumulative Constraint with Resource Consumption and Production               | Yes | [411] | 2008 | ICAPS 2008          | 8     | 0        | 0       | 535  | 824  |
| BeldiceanuP07<br>BeldiceanuP07     | N. Beldiceanu, E. Poder                          | A Continuous Multi-resources <i>cumulative</i> Constraint with Positive-Negative Resource Consumption-Production        | Yes | [71]  | 2007 | CPAIOR 2007         | 15    | 4        | 7       | 346  | 827  |
| PoderBS04 PoderBS04                | E. Poder, N. Beldiceanu, E. Sanlaville           | Computing a lower approximation of the compulsory part of a task with varying duration and varying resource consumption | Yes | [412] | 2004 | Eur. J. Oper. Res.  | 16    | 7        | 8       | 1277 | 1519 |

## D.33 Works by Louis-Martin Rousseau

Table 56: Works from bibtex (Total 6)

| Key                          | Authors                                       | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|------------------------------|---|---|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| CappartTSR18<br>CappartTSR18 | Q. Cappart, C. Thomas, P. Schaus, L. Rousseau | A Constraint Programming Approach for Solving Patient Transportation Problems | Yes | [115] | 2018 | CP 2018             | 17    | 6        | 31      | 370 | 684 |

Table 56: Works from bibtex (Total 6)

| Key                          | Authors   | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------|---|---|-----|-------|------|---------------------|-------|----------|---------|------|------|
| DoulabiRP16<br>DoulabiRP16   | Seyed Hossein Hashemi Doulabi, L. Rousseau, G. Pesant | A Constraint-Programming-Based Branch-and-Price-and-Cut Approach for Operating Room Planning and Scheduling | Yes | [159] | 2016 | INFORMS J. Comput.  | 17    | 56       | 28      | 1196 | 1437 |
| PesantRR15<br>PesantRR15     | G. Pesant, G. Rix, L. Rousseau                        | A Comparative Study of MIP and CP Formulations for the B2B Scheduling Optimization Problem                  | Yes | [409] | 2015 | CPAIOR 2015         | 16    | 1        | 7       | 534  | 739  |
| DoulabiRP14<br>DoulabiRP14   | Seyed Hossein Hashemi Doulabi, L. Rousseau, G. Pesant | A Constraint Programming-Based Column Generation Approach for Operating Room Planning and Scheduling        | Yes | [158] | 2014 | CPAIOR 2014         | 9     | 3        | 10      | 394  | 752  |
| ChapadosJR11<br>ChapadosJR11 | N. Chapados, M. Joliveau, L. Rousseau                 | Retail Store Workforce Scheduling by Expected Operating Income Maximization                                 | Yes | [125] | 2011 | CPAIOR 2011         | 6     | 5        | 12      | 375  | 786  |
| HachemiGR11<br>HachemiGR11   | Nizar El Hachemi, M. Gendreau, L. Rousseau            | A hybrid constraint programming approach to the log-truck scheduling problem                                | Yes | [221] | 2011 | Ann. Oper. Res.     | 16    | 32       | 19      | 1214 | 1477 |

### D.34 Works by Cyrille Dejemeppe

Table 57: Works from bibtex (Total 5)

| Key                                | Authors  | Title  | LC  | Cite  | Year | Conference /Journal                                       | Pages | Nr Cites | Nr Refs | b    | c    |
|------------------------------------|--|--|-----|-------|------|---|-------|----------|---------|------|------|
| CauwelaertDS20<br>CauwelaertDS20   | Sasha Van Cauwelaert, C. Dejemeppe, P. Schaus              | An Efficient Filtering Algorithm for the Unary Resource Constraint with Transition Times and Optional Activities | No  | [123] | 2020 | Journal of Scheduling                                     | null  | 2        | 21      | No   | 1392 |
| CauwelaertDMS16<br>CauwelaertDMS16 | Sascha Van Cauwelaert, C. Dejemeppe, J. Monette, P. Schaus | Efficient Filtering for the Unary Resource with Family-Based Transition Times                                    | Yes | [121] | 2016 | CP 2016   | 16    | 1        | 12      | 373  | 712  |
| Dejemeppe16<br>Dejemeppe16         | C. Dejemeppe   | Constraint programming algorithms and models for scheduling applications   | Yes | [146] | 2016 | Catholic University of Louvain, Louvain-la-Neuve, Belgium | 274   | 0        | 0       | 2479 | ??   |
| DejemeppeCS15<br>DejemeppeCS15     | C. Dejemeppe, Sascha Van Cauwelaert, P. Schaus             | The Unary Resource with Transition Times   | Yes | [147] | 2015 | CP 2015   | 16    | 5        | 11      | 387  | 729  |
| DejemeppeD14<br>DejemeppeD14       | C. Dejemeppe, Y. Deville                                   | Continuously Degrading Resource and Interval Dependent Activity Durations in Nuclear Medicine Patient Scheduling | Yes | [148] | 2014 | CPAIOR 2014   | 9     | 0        | 7       | 388  | 749  |

### D.35 Works by Yves Deville

Table 58: Works from bibtex (Total 5)

| Key                          | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|------------------------------|--|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| DejemeppeD14<br>DejemeppeD14 | C. Dejemeppe, Y. Deville   | Continuously Degrading Resource and Interval Dependent Activity Durations in Nuclear Medicine Patient Scheduling | Yes | [148] | 2014 | CPAIOR 2014         | 9     | 0        | 7       | 388 | 749 |
| HoundjiSWD14<br>HoundjiSWD14 | Vinasétan Ratheil Houndji, P. Schaus, Laurence A. Wolsey, Y. Deville | The StockingCost Constraint  | Yes | [259] | 2014 | CP 2014             | 16    | 5        | 7       | 453 | 755 |

Table 58: Works from bibtex (Total 5)

| Key           | Authors                                       | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b    | c    |
|---------------|---|--|-----|-------|------|---------------------|-------|----------|---------|------|------|
| SchausHMCMD11 | P. Schaus, Pascal Van Hentenryck, J. Monette, | Solving Steel Mill Slab Problems with          | Yes | [437] | 2011 | Constraints An Int. | 23    | 14       | 5       | 1290 | 1482 |
| SchausHMCMD11 | C. Coffrin, L. Michel, Y. Deville             | constraint-based techniques: CP, LNS, and CBLS |     |       |      | J.                  |       |          |         |      |      |
| MonetteDH09   | J. Monette, Y. Deville, Pascal Van Hentenryck | Just-In-Time Scheduling with Constraint        | Yes | [366] | 2009 | ICAPS 2009          | 8     | 0        | 0       | 513  | 812  |
| MonetteDH09   |   | Programming                                    |     |       |      |                     |       |          |         |      |      |
| MonetteDD07   | J. Monette, Y. Deville, P. Dupont             | A Position-Based Propagator for the Open-Shop  | Yes | [365] | 2007 | CPAIOR 2007         | 14    | 0        | 12      | 512  | 835  |
| MonetteDD07   |   | Problem  |     |       |      |                     |       |          |         |      |      |

### D.36 Works by Mark G. Wallace

Table 59: Works from bibtex (Total 5)

| Key           | Authors  | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b    | c    |
|---------------|--|---|-----|-------|------|---------------------|-------|----------|---------|------|------|
| SchuttFSW13   | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. | Solving RCPSP/max by lazy clause generation     | Yes | [445] | 2013 | J. Sched.           | 17    | 43       | 23      | 1293 | 1465 |
| SchuttFSW13   | Wallace  |   |     |       |      |                     |       |          |         |      |      |
| GuSW12 GuSW12 | H. Gu, Peter J. Stuckey, Mark G. Wallace       | Maximising the Net Present Value of Large       | Yes | [219] | 2012 | CP 2012             | 15    | 5        | 20      | 434  | 774  |
|               |  | Resource-Constrained Projects                   |     |       |      |                     |       |          |         |      |      |
| SchuttCSW12   | A. Schutt, G. Chu, Peter J. Stuckey, Mark G.   | Maximising the Net Present Value for            | Yes | [439] | 2012 | CPAIOR 2012         | 17    | 18       | 21      | 548  | 779  |
| SchuttCSW12   | Wallace  | Resource-Constrained Project Scheduling         |     |       |      |                     |       |          |         |      |      |
| SchuttFSW11   | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. | Explaining the cumulative propagator            | Yes | [444] | 2011 | Constraints An Int. | 33    | 57       | 23      | 1292 | 1483 |
| SchuttFSW11   | Wallace  |   |     |       |      | J.                  |       |          |         |      |      |
| abs-1009-0347 | A. Schutt, T. Feydy, Peter J. Stuckey, Mark G. | Solving the Resource Constrained Project        | Yes | [443] | 2010 | CoRR                | 37    | 0        | 0       | 1330 | 1493 |
| abs-1009-0347 | Wallace  | Scheduling Problem with Generalized Precedences |     |       |      |                     |       |          |         |      |      |
|               |  | by Lazy Clause Generation                       |     |       |      |                     |       |          |         |      |      |

### D.37 Works by Diarmuid Grimes

Table 60: Works from bibtex (Total 5)

| Key                 | Authors  | Title   | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b    | c    |
|---------------------|--|---|-----|-------|------|---------------------|-------|----------|---------|------|------|
| GrimesH15 GrimesH15 | D. Grimes, E. Hebrard                          | Solving Variants of the Job Shop Scheduling           | No  | [212] | 2015 | INFORMS J. Com-     | 17    | 12       | 41      | No   | 1447 |
|                     |  | Problem Through Conflict-Directed Search              |     |       |      | put.                |       |          |         |      |      |
| GrimesIOS14         | D. Grimes, G. Ifrim, B. O'Sullivan, H. Simonis | Analyzing the impact of electricity price forecasting | Yes | [214] | 2014 | Sustain. Comput.    | 16    | 6        | 7       | 1211 | 1456 |
| GrimesIOS14         |  | on energy cost-aware scheduling                       |     |       |      | Informatics Syst.   |       |          |         |      |      |
| GrimesH11 GrimesH11 | D. Grimes, E. Hebrard                          | Models and Strategies for Variants of the Job Shop    | Yes | [211] | 2011 | CP 2011             | 17    | 5        | 18      | 428  | 789  |
|                     |  | Scheduling Problem                                    |     |       |      |                     |       |          |         |      |      |
| GrimesH10 GrimesH10 | D. Grimes, E. Hebrard                          | Job Shop Scheduling with Setup Times and              | Yes | [210] | 2010 | CPAIOR 2010         | 15    | 13       | 20      | 427  | 801  |
|                     |  | Maximal Time-Lags: A Simple Constraint                |     |       |      |                     |       |          |         |      |      |
|                     |  | Programming Approach                                  |     |       |      |                     |       |          |         |      |      |
| GrimesHM09          | D. Grimes, E. Hebrard, A. Malapert             | Closing the Open Shop: Contradicting Conventional     | Yes | [213] | 2009 | CP 2009             | 9     | 15       | 12      | 429  | 809  |
| GrimesHM09          |  | Wisdom  |     |       |      |                     |       |          |         |      |      |

## D.38 Works by Roger Kameugne

Table 61: Works from bibtex (Total 5)

| Key                              | Authors  | Title  | LC  | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|----------------------------------|--|--|-----|-------|------|------------------------|-------|-------------|------------|------|------|
| KameugneFND23<br>KameugneFND23   | R. Kameugne, Séverine Betmbe Fetgo, T. Noulamo, Clémentin Tayou Djamégni | Horizontally Elastic Edge Finder Rule for Cumulative Constraint Based on Slack and Density     | Yes | [273] | 2023 | CP 2023                | 17    | 0           | 0          | 461  | 618  |
| KameugneFGOQ18<br>KameugneFGOQ18 | R. Kameugne, Séverine Betmbe Fetgo, V. Gingras, Y. Ouellet, C. Quimper   | Horizontally Elastic Not-First/Not-Last Filtering Algorithm for Cumulative Resource Constraint | Yes | [272] | 2018 | CPAIOR 2018            | 17    | 1           | 12         | 460  | 688  |
| Kameugne15<br>Kameugne15         | R. Kameugne  | Propagation techniques of resource constraint for cumulative scheduling                        | Yes | [271] | 2015 | Constraints An Int. J. | 2     | 0           | 0          | 1228 | 1448 |
| KameugneFSN14<br>KameugneFSN14   | R. Kameugne, Laure Pauline Fotso, Joseph D. Scott, Y. Ngo-Kateu          | A quadratic edge-finding filtering algorithm for cumulative resource constraints               | Yes | [275] | 2014 | Constraints An Int. J. | 27    | 6           | 10         | 1229 | 1457 |
| KameugneFSN11<br>KameugneFSN11   | R. Kameugne, Laure Pauline Fotso, Joseph D. Scott, Y. Ngo-Kateu          | A Quadratic Edge-Finding Filtering Algorithm for Cumulative Resource Constraints               | Yes | [274] | 2011 | CP 2011                | 15    | 7           | 9          | 462  | 792  |

## D.39 Works by Juan M. Novas

Table 62: Works from bibtex (Total 5)

| Key                      | Authors  | Title  | LC  | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|--------------------------|--|--|-----|-------|------|------------------------|-------|-------------|------------|------|------|
| Novas19 Novas19          | Juan M. Novas  | Production scheduling and lot streaming at flexible job-shops environments using constraint programming  | Yes | [388] | 2019 | Comput. Ind. Eng.      | 13    | 30          | 29         | 1268 | 1407 |
| NovaraNH16<br>NovaraNH16 | Franco M. Novara, Juan M. Novas, Gabriela P. Henning | A novel constraint programming model for large-scale scheduling problems in multiproduct multistage batch plants: Limited resources and campaign-based operation | Yes | [387] | 2016 | Comput. Chem. Eng.     | 17    | 18          | 31         | 1267 | 1441 |
| NovasH14 NovasH14        | Juan M. Novas, Gabriela P. Henning                   | Integrated scheduling of resource-constrained flexible manufacturing systems using constraint programming  | Yes | [391] | 2014 | Expert Syst. Appl.     | 14    | 35          | 26         | 1271 | 1458 |
| NovasH12 NovasH12        | Juan M. Novas, Gabriela P. Henning                   | A comprehensive constraint programming approach for the rolling horizon-based scheduling of automated wet-etch stations  | Yes | [390] | 2012 | Comput. Chem. Eng.     | 17    | 17          | 15         | 1270 | 1470 |
| NovasH10 NovasH10        | Juan M. Novas, Gabriela P. Henning                   | Reactive scheduling framework based on domain knowledge and constraint programming   | Yes | [389] | 2010 | Comput. Chem. Eng.     | 20    | 48          | 19         | 1269 | 1491 |

## D.40 Works by Marek Vlk

Table 63: Works from bibtex (Total 5)

| Key                              | Authors                                 | Title  | LC  | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b    | c    |
|----------------------------------|---|--|-----|-------|------|------------------------|-------|-------------|------------|------|------|
| abs-2305-19888<br>abs-2305-19888 | V. Heinz, A. Novák, M. Vlk, Z. Hanzálek | Constraint Programming and Constructive Heuristics for Parallel Machine Scheduling with Sequence-Dependent Setups and Common Servers | Yes | [241] | 2023 | CoRR                   | 42    | 0           | 0          | 1337 | 1357 |

Table 63: Works from bibtex (Total 5)

| Key                              | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b    | c    |
|----------------------------------|--|--|-----|-------|------|---------------------|-------|----------|---------|------|------|
| HeinzNVH22<br>HeinzNVH22         | V. Heinz, A. Novák, M. Vlk, Z. Hanzálek              | Constraint Programming and constructive heuristics for parallel machine scheduling with sequence-dependent setups and common servers | Yes | [240] | 2022 | Comput. Ind. Eng.   | 16    | 5        | 25      | 1219 | 1367 |
| VlkHT21 VlkHT21                  | M. Vlk, Z. Hanzálek, S. Tang                         | Constraint programming approaches to joint routing and scheduling in time-sensitive networks   | Yes | [520] | 2021 | Comput. Ind. Eng.   | 14    | 7        | 22      | 1312 | 1385 |
| BenediktSMVH18<br>BenediktSMVH18 | O. Benedikt, P. Sucha, I. Módos, M. Vlk, Z. Hanzálek | Energy-Aware Production Scheduling with Power-Saving Modes   | Yes | [76]  | 2018 | CPAIOR 2018         | 10    | 2        | 12      | 348  | 683  |
| BartakV15 BartakV15              | R. Barták, M. Vlk                                    | Reactive Recovery from Machine Breakdown in Production Scheduling with Temporal Distance and Resource Constraints                    | Yes | [48]  | 2015 | ICAART 2015         | 12    | 0        | 0       | 335  | 726  |

## D.41 Works by Armin Wolf

Table 64: Works from bibtex (Total 5)

| Key                        | Authors  | Title  | LC  | Cite  | Year | Conference /Journal | Pages | Nr Cites | Nr Refs | b   | c   |
|----------------------------|--|--|-----|-------|------|---------------------|-------|----------|---------|-----|-----|
| GeitzGSSW22<br>GeitzGSSW22 | M. Geitz, C. Grozea, W. Steigerwald, R. Stöhr, A. Wolf | Solving the Extended Job Shop Scheduling Problem with AGVs - Classical and Quantum Approaches  | Yes | [196] | 2022 | CPAIOR 2022         | 18    | 0        | 24      | 417 | 630 |
| SchuttW10 SchuttW10        | A. Schutt, A. Wolf                                     | A New $O(n^2 \log n)$ Not-First/Not-Last Pruning Algorithm for Cumulative Resource Constraints | Yes | [448] | 2010 | CP 2010             | 15    | 13       | 14      | 553 | 804 |
| SchuttWS05<br>SchuttWS05   | A. Schutt, A. Wolf, G. Schrader                        | Not-First and Not-Last Detection for Cumulative Scheduling in $O(n^3 \log n)$                  | Yes | [449] | 2005 | INAP 2005           | 15    | 6        | 4       | 554 | 860 |
| WolfS05 WolfS05            | A. Wolf, G. Schrader                                   | $O(n \log n)$ Overload Checking for the Cumulative Constraint and Its Application              | Yes | [533] | 2005 | INAP 2005           | 14    | 6        | 6       | 599 | 862 |
| Wolf03 Wolf03              | A. Wolf  | Pruning while Sweeping over Task Intervals   | Yes | [532] | 2003 | CP 2003             | 15    | 11       | 7       | 598 | 882 |



## E Other Works

## E.1 Books from bibtex

Table 65: Works from bibtex (Total 2)

| Key               | Authors                                 | Title   | LC | Cite  | Year | Conference<br>/Journal | Pages | Nr<br>Cites | Nr<br>Refs | b  | c  |
|-------------------|---|---|----|-------|------|------------------------|-------|-------------|------------|----|----|
| BaptistePN01      | P. Baptiste, Claude Le Pape, W. Nuijten | Constraint-Based Scheduling   | No | [39]  | 2001 | Book                   | null  | 296         | 0          | No | ?? |
| BaptistePN01      |   |   |    |       |      |                        |       |             |            |    |    |
| Hooker00 Hooker00 | John N. Hooker                          | Logic Based Methods for Optimization: Combining<br>Optimization and Constraint Satisfaction | No | [248] | 2000 | Book                   | null  | 185         | 0          | No | ?? |

## E.2 PhDThesis from bibtex

Table 66: Works from bibtex (Total 14)

| Key                        | Authors                           | Title   | LC  | Cite  | Year | Conference /Journal                                       | Pages | Nr Cites | Nr Refs | b    | c  |
|----------------------------|-----------------------------------|---|-----|-------|------|---|-------|----------|---------|------|----|
| Astrand21 Astrand21        | M. Åstrand                        | Short-term Underground Mine Scheduling: An Industrial Application of Constraint Programming   | Yes | [25]  | 2021 | Royal Institute of Technology, Stockholm, Sweden          | 142   | 0        | 0       | 2477 | ?? |
| Godet21a Godet21a          | A. Godet                          | Sur le tri de tâches pour résoudre des problèmes d'ordonnancement avec la programmation par contraintes. (On the use of tasks ordering to solve scheduling problems with constraint programming)  | Yes | [202] | 2021 | IMT Atlantique Bretagne Pays de la Loire, Brest, France   | 168   | 0        | 0       | 2482 | ?? |
| Lemos21 Lemos21            | Alexandre Duarte de Almeida Lemos | Solving scheduling problems under disruptions   | Yes | [315] | 2021 | UNIVERSIDADE DE LISBOA INSTITUTO SUPERIOR TÉCNICO         | 188   | 0        | 0       | 2484 | ?? |
| Lunardi20 Lunardi20        | Willian Tessaro Lunardi           | A Real-World Flexible Job Shop Scheduling Problem With Sequencing Flexibility: Mathematical Programming, Constraint Programming, and Metaheuristics   | Yes | [344] | 2020 | University of Luxembourg, Luxembourg City, Luxembourg     | 181   | 0        | 0       | 2486 | ?? |
| Dejemeppe16<br>Dejemeppe16 | C. Dejemeppe                      | Constraint programming algorithms and models for scheduling applications  | Yes | [146] | 2016 | Catholic University of Louvain, Louvain-la-Neuve, Belgium | 274   | 0        | 0       | 2479 | ?? |
| Derrien15 Derrien15        | A. Derrien                        | Ordonnancement cumulatif en programmation par contraintes : caractérisation énergétique des raisonnements et solutions robustes. (Cumulative scheduling in constraint programming : energetic characterization of reasoning and robust solutions)                                   | Yes | [151] | 2015 | École des mines de Nantes, France                         | 113   | 0        | 0       | 2481 | ?? |
| Siala15a Siala15a          | M. Siala                          | Search, propagation, and learning in sequencing and scheduling problems. (Recherche, propagation et apprentissage dans les problèmes de séquençement et d'ordonnancement)   | Yes | [456] | 2015 | INSA Toulouse, France                                     | 199   | 0        | 0       | 2490 | ?? |
| Malapert11 Malapert11      | A. Malapert                       | Techniques d'ordonnancement d'atelier et de fournées basées sur la programmation par contraintes. (Shop and batch scheduling with constraints)  | Yes | [350] | 2011 | École des mines de Nantes, France                         | 194   | 0        | 0       | 2487 | ?? |
| Menana11 Menana11          | J. Menana                         | Automates et programmation par contraintes pour la planification de personnel. (Automata and Constraint Programming for Personnel Scheduling Problems)  | Yes | [359] | 2011 | University of Nantes, France                              | 148   | 0        | 0       | 2489 | ?? |
| Lombardi10 Lombardi10      | M. Lombardi                       | Hybrid Methods for Resource Allocation and Scheduling Problems in Deterministic and Stochastic Environments   | Yes | [330] | 2010 | University of Bologna, Italy                              | 175   | 0        | 0       | 2485 | ?? |
| Malik08 Malik08            | Abid M. Malik                     | Constraint Programming Techniques for Optimal Instruction Scheduling  | Yes | [352] | 2008 | University of Waterloo, Ontario, Canada                   | 151   | 0        | 0       | 2488 | ?? |
| Demasse03<br>Demasse03     | S. Demassey                       | Méthodes hybrides de programmation par contraintes et programmation linéaire pour le problème d'ordonnancement de projet à contraintes de ressources. (Hybrid Constraint Programming-Integer Linear Programming approaches for the Resource-Constrained Project Scheduling Problem) | Yes | [149] | 2003 | University of Avignon, France                             | 148   | 0        | 0       | 2480 | ?? |
| Layfield02 Layfield02      | Colin J. Layfield                 | A constraint programming pre-processor for duty scheduling  | Yes | [314] | 2002 | University of Leeds, UK                                   | 230   | 0        | 0       | 2483 | ?? |

Table 66: Works from bibtex (Total 14)

| Key           | Authors             | Title   | LC  | Cite | Year | Conference<br>/Journal           | Pages | Nr<br>Cites | Nr<br>Refs | b    | c  |
|---------------|---------------------|---|-----|------|------|----------------------------------|-------|-------------|------------|------|----|
| Beck99 Beck99 | J. Christopher Beck | Texture measurements as a basis for heuristic<br>commitment techniques in constraint-directed<br>scheduling | Yes | [51] | 1999 | University of<br>Toronto, Canada | 418   | 0           | 0          | 2478 | ?? |

Table 67: Automatically Extracted THESIS Properties (Requires Local Copy)

| Work              | Pages | Concepts   | Classification  | Constraints   | Prog Languages | CP Systems   | Areas   | Industries   | Benchmarks  | Algorithm  | a    | c  |
|-------------------|-------|--|---|---|----------------|--|---|--|---|--|------|----|
| Astrand21 [25]    | 142   | distributed, due-date, job-shop, transportation, flow-shop, resource, scheduling, make-span, open-shop, completion-time, task, machine, job, re-scheduling, precedence, order, inventory, tardiness, activity, setup-time, preempt, release-date, sequence dependent setup                 | RCPSP, single machine, parallel machine                     | disjunctive, cumulative, alldifferent, cycle, circuit     | C++, Julia     | OZ, OPL, Cplex, Gecode   | satellite, drone, agriculture, semiconductor, robot                           | potash industry, mineral industry, mining industry | benchmark, real-world, generated instance, real-life  | not-first, time-tabling, edge-finding, not-last        | 2463 | ?? |
| Beck99 [51]       | 418   | transportation, due-date, stock level, multi-agent, order, distributed, preempt, scheduling, inventory, precedence, make-span, re-scheduling, machine, resource, job, release-date, job-shop, tardiness, task, producer/consumer, activity   | single machine  | circuit, disjunctive, cumulative                          | Prolog, C++    | CHIP, Ilog Solver, Ilog Scheduler, OPL                           | robot, medical  |  | benchmark, real-world   | not-first, not-last, edge-finding                      | 2476 | ?? |
| Dejemeppe16 [146] | 274   | completion-time, re-scheduling, make-span, sequence dependent setup, resource, open-shop, order, setup-time, job, activity, earliness, due-date, continuous-process, task, machine, preempt, release-date, flow-shop, job-shop, batch process, lateness, tardiness, precedence, scheduling | psplib, PTC, single machine, RCPSP                          | alldifferent, disjunctive, cycle, cumulative, circuit     |                | CHIP, OR-Tools, CPO, Ilog Solver, OPL, OZ, Gecode                | medical, patient, super-computer, nurse, robot, physician, container terminal |  | generated instance, benchmark, industrial partner, random instance, real-world, instance generator, bitbucket | not-last, not-first, sweep, edge-finding               | 2467 | ?? |
| Demasse03 [149]   | 148   | job, precedence, release-date, resource, job-shop, open-shop, scheduling, preempt, activity, flow-shop, task, order, machine   | single machine, psplib, CuSP, RCPSP, TCSP                   | circuit, cumulative, disjunctive, cycle                   | C++            | Claire, Cplex, Ilog Solver, OZ                                   |   |  | benchmark   | not-last, time-tabling, not-first, edge-finding        | 2474 | ?? |
| Derrien15 [151]   | 113   | job-shop, resource, scheduling, make-span, precedence, order, task, machine, job, activity, preempt, open-shop   | psplib, CuSP  | alldifferent, circuit, disjunctive, cumulative            |                | Claire, Choco Solver   | robot   |  | benchmark   | time-tabling, energetic reasoning, edge-finding, sweep | 2468 | ?? |
| Godet21a [202]    | 168   | flow-shop, precedence, open-shop, cmax, release-date, preempt, due-date, make-span, transportation, order, scheduling, machine, lazy clause generation, distributed, resource, completion-time, lateness, job, job-shop, task, activity  | single machine, JSSP, PMSP, RCPSP, psplib, parallel machine | bin-packing, disjunctive, alldifferent, cycle, cumulative |                | MiniZinc, CHIP, OR-Tools, OZ, OPL, Claire, Choco Solver, Chuffed | satellite, robot, railway   | electricity industry                               | generated instance, real-life, benchmark, github, random instance   | time-tabling, sweep, edge-finding                      | 2464 | ?? |
| Layfield02 [314]  | 230   |  |   |   | C              | OZ, Z3, OPL  |   |  |   |  | 2475 | ?? |

Table 67: Automatically Extracted THESIS Properties (Requires Local Copy)

| Work             | Pages | Concepts  | Classification                               | Constraints   | Prog Languages    | CP Systems   | Areas  | Industries | Benchmarks  | Algorithm  | a    | c  |
|------------------|-------|---|--|---|-------------------|--|--|------------|---|--|------|----|
| Lemos21 [315]    | 188   | distributed, job, job-shop, machine, multi-agent, order, precedence, re-scheduling, resource, scheduling, task, transportation  | RCPSP  | alldifferent, cumulative, cycle   | C++, Java, Python | Cplex, Gurobi, OPL, OZ   | COVID, crew-scheduling, medical, railway, surgery      |            | Roadef, benchmark, github, real-life, real-world  | time-tabling   | 2465 | ?? |
| Lombardi10 [330] | 175   | activity, completion-time, distributed, due-date, inventory, job, job-shop, lazy clause generation, machine, make-span, order, precedence, preempt, re-scheduling, release-date, resource, scheduling, setup-time, tardiness, task                                  | CTW, RCPSP, SCC, TCSP, single machine        | bin-packing, circuit, cumulative, cycle, disjunctive, span constraint, table constraint | C                 | Cplex, Ilog Solver, OPL, OZ  | aircraft, automotive, medical, pipeline, semiconductor |            | benchmark, generated instance, instance generator, real-life, real-world  | edge-finder, edge-finding, energetic reasoning, not-first, not-last, sweep, time-tabling | 2472 | ?? |
| Lunardi20 [344]  | 181   | re-scheduling, setup-time, release-date, no preempt, due-date, preempt, job-shop, batch process, transportation, flow-shop, resource, scheduling, make-span, open-shop, task, precedence, order, cmax, completion-time, machine, tardiness, job, lateness, activity | FJS, parallel machine, single machine        | endBeforeStart, alldifferent, disjunctive, cycle, noOverlap                             | Python            | CPO, OPL, Cplex  | robot  |            | supplementary material, industrial partner, instance generator, benchmark, random instance, real-world, generated instance, real-life, github |  | 2466 | ?? |
| Malapert11 [350] | 194   | activity, batch process, cmax, completion-time, due-date, flow-shop, flow-time, inventory, job, job-shop, lateness, machine, make-span, open-shop, order, precedence, preempt, resource, scheduling, setup-time, tardiness, task, transportation                    | Open Shop Scheduling Problem, single machine | alldifferent, bin-packing, circuit, cumulative, cycle, diffn, disjunctive, geost        | C++, Java, Prolog | CHIP, Choco Solver, Claire, Cplex, ECLiPSe, Gecode, Ilog Scheduler, Mistral, OPL, OZ, SICS-tus | patient, rectangle-packing, robot, semiconductor       |            | benchmark, generated instance, industrial partner, real-world   | edge-finding, energetic reasoning, not-first, not-last, sweep, time-tabling              | 2470 | ?? |
| Malik08 [352]    | 151   | order, machine, task, job, completion-time, activity, distributed, precedence, resource, make-span, scheduling  |  | alldifferent, cycle   |                   |  | pipeline   |            | real-life, benchmark  | edge-finding   | 2473 | ?? |
| Menana11 [359]   | 148   | distributed, resource, machine, task, manpower, activity, precedence, scheduling  |  | alldifferent  | Prolog            | Choco Solver, Z3, OZ, CHIP, OPL, Claire  | nurse  |            | github, benchmark, Roadef   | time-tabling   | 2471 | ?? |
| Siala15a [456]   | 199   | activity, cmax, due-date, earliness, job, job-shop, lazy clause generation, machine, make-span, open-shop, order, precedence, resource, scheduling, sequence dependent setup, setup-time, tardiness, task   | OSP, RCPSP, TMS, single machine              | alldifferent, circuit, cumulative, cycle, disjunctive, table constraint                 |                   | CHIP, Claire, Ilog Solver, Mistral, OPL  | automotive, rectangle-packing                          |            | CSPlib, Roadef, benchmark, github, random instance, real-world  | edge-finding, time-tabling   | 2469 | ?? |

### E.3 InBook from bibtex

Table 68: Works from bibtex (Total 1)

| Key                        | Authors  | Title                             | LC | Cite  | Year | Conference<br>/Journal                                 | Pages | Nr<br>Cites | Nr<br>Refs | b  | c  |
|----------------------------|--|-----------------------------------|----|-------|------|--|-------|-------------|------------|----|----|
| SchuttFSW15<br>SchuttFSW15 | S. Andreas, F. Thibaut, Stuckey, Peter J.,<br>Wallace, Mark G. | A Satisfiability Solving Approach | No | [446] | 2015 | Handbook on<br>Project Management and Scheduling Vol.1 | 26    | 3           | 28         | No | ?? |

## E.4 InCollection from bibtex

Table 69: Works from bibtex (Total 6)

| Key                            | Authors   | Title   | LC | Cite  | Year | Conference /Journal   | Pages | Nr Cites | Nr Refs | b  | c  |
|--------------------------------|---|---|----|-------|------|---|-------|----------|---------|----|----|
| BlazewiczEP19<br>BlazewiczEP19 | J. Blazewicz, Klaus H. Ecker, E. Pesch, G. Schmidt, M. Sterna, J. Weglarz | Constraint Programming and Disjunctive Scheduling                     | No | [85]  | 2019 | Handbook on Scheduling  | 62    | 38       | 0       | No | ?? |
| Hooker19 Hooker19              | John N. Hooker  | Logic-Based Benders Decomposition for Large-Scale Optimization        | No | [255] | 2019 | Large Scale Optimization in Supply Chains and Smart Manufacturing   | 26    | 8        | 0       | No | ?? |
| Bartak14 Bartak14              | R. Barták   | Planning and Scheduling   | No | [44]  | 2014 | Computing Handbook, Third Edition: Computer Science and Software Engineering  | null  | 0        | 0       | No | ?? |
| BaptisteLPN06<br>BaptisteLPN06 | P. Baptiste, P. Laborie, Claude Le Pape, W. Nuijten                       | Constraint-Based Scheduling and Planning                              | No | [36]  | 2006 | Handbook of Constraint Programming  | 39    | 30       | 25      | No | ?? |
| KanetAG04 KanetAG04            | John J. Kanet, S. Ahire, Michael F. Gorman                                | Constraint Programming for Scheduling                                 | No | [276] | 2004 | Handbook of Scheduling - Algorithms, Models, and Performance Analysis   | null  | 0        | 0       | No | ?? |
| BreitingerL95<br>BreitingerL95 | S. Breitinger, Hendrik C. R. Lock   | Using Constraint Logic Programming for Industrial Scheduling Problems | No | [106] | 1995 | Logic Programming: Formal Methods and Practical Applications, Studies in Computer Science and Artificial Intelligence | 27    | 0        | 0       | No | ?? |