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ENTRY  address author booktitle chapter collaboration edition editor howpublished institution journal
key month note number organization pages publisher school series title type volume year url doi eprint
pubmed label extra.label sort.label short.list
INTEGERS  output.state before.all mid.sentence after.sentence after.block
STRINGS  urlprefix doiprefix eprintprefix pubmedprefix
FUNCTION init.web.variables "" 'urlprefix := "" 'doiprefix := "" 'eprintprefix := "" 'pubmedprefix
:=
FUNCTION init.state.consts 0 'before.all := 1 'mid.sentence := 2 'after.sentence := 3 'after.block :=
STRINGS s t FUNCTION output.nonnull 's := output.state mid.sentence = ", " * writeoutput.stateafter.block = ", " * u
newline"" write output.state before.all = 'writeadd.period " " * writeif ifmid.sentence'output.state := if s
FUNCTION output duplicateempty 'pop'output.nonnullif FUNCTION output.check 't := duplicateempty
pop"empty"t * "in" * cite * warning'output.nonnullif FUNCTION fin.entry add.periodwrite newline
FUNCTION new.block output.state before.all = 'skipafter.block'output.state :=if FUNCTION new.sentence
output.state after.block = 'skipoutput.statebefore.all = ' skip after.sentence 'output.state := ifif FUNC-
TION add.blank " " * before.all 'output.state :=
FUNCTION date.block skip
FUNCTION not 0 1 ifFUNCTIONand'skip pop0if FUNCTION or pop1'skipifFUNCTIONnew.block.checkb
swapempty and 'skip'new.blockif FUNCTION field.or.null duplicateempty pop""'skipifFUNCTIONemphasizeduplica
emptypop "" "" swap*"" * if FUNCTION tie.or.space.prefix duplicatetext.length 3 | " " " " ifswap
FUNCTION capitalize "u" change.case"t"change.case
FUNCTION space.word " " swap*"" * FUNCTIONbbl.and"and"
FUNCTION bbl.etal "et al."
FUNCTION bbl.editors "eds."
FUNCTION bbl.editor "ed."
FUNCTION bbl.edby "edited by"
FUNCTION bbl.edition "ed."
FUNCTION bbl.volume "volume"
FUNCTION bbl.of "of"
FUNCTION bbl.number "number"
FUNCTION bbl.nr "no."
FUNCTION bbl.in "in"
FUNCTION bbl.pages "pp."
FUNCTION bbl.page "p."
FUNCTION bbl.chapter "chapter"
FUNCTION bbl.techrep "Technical Report"
FUNCTION bbl.mthesis "Master's thesis"
FUNCTION bbl.phdthesis "Ph.D. thesis"
MACRO jan "January"
MACRO feb "February"
MACRO mar "March"
MACRO apr "April"
MACRO may "May"
MACRO jun "June"
MACRO jul "July"
MACRO aug "August"
MACRO sep "September"
MACRO oct "October"
MACRO nov "November"
MACRO dec "December"
MACRO acmcs "ACM Comput. Surv."
MACRO acta "Acta Inf."
MACRO cacm "Commun. ACM"
MACRO ibmjrd "IBM J. Res. Dev."

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MACRO ibmsj "IBM Syst. J."
MACRO ieeeese "IEEE Trans. Software Eng."
MACRO ieeeetc "IEEE Trans. Comput."
MACRO ieeeetcad "IEEE Trans. Comput. Aid. Des."
MACRO ipl "Inf. Process. Lett."
MACRO jacm "J. ACM"
MACRO jcscs "J. Comput. Syst. Sci."
MACRO scp "Sci. Comput. Program."
MACRO sicomp "SIAM J. Comput."
MACRO tocs "ACM Trans. Comput. Syst."
MACRO tods "ACM Trans. Database Syst."
MACRO tog "ACM Trans. Graphic."
MACRO toms "ACM Trans. Math. Software"
MACRO toois "ACM Trans. Office Inf. Syst."
MACRO toplas "ACM Trans. Progr. Lang. Syst."
MACRO tcs "Theor. Comput. Sci."
FUNCTION bibinfo.check swapduplicate missingpop pop"" duplicate emptyswap popswap "" swap*"" * swap
* "" * ifif FUNCTION bibinfo.warn swapduplicate missingswap "missing" swap*"in" *cite * warningpop
"" duplicateempty swap"empty"swap * " in "" * cite*warning swappop ifif STRINGS bibinfo INTE-
GERS nameptr namesleft numnames
FUNCTION format.names 'bibinfo := duplicateempty 'skip's := ""'t := 1' nameptr := s num.names
'numnames := numnames 'namesleft := namesleft 0 ; s nameptr "f. vv ll, jj" format.namebibinfo.bibinfo.check't :=
nameptr1 > namesleft1 > ", " * t*, " * snameptr"ll" format.name duplicate"others" = 't :=pop ift"others" =
"" * bbl.etal*"" * t*if iftif nameptr 1 + 'nameptr := namesleft 1 - 'namesleft := whileif FUNCTION
format.names.ed format.names FUNCTION format.key emptykeyfield.or.null""if
FUNCTION format.authors author "author" format.names duplicateempty 'skipcollaboration"collaboration"bibinfo
empty'skip " (" swap*)" * if * if
FUNCTION get.bbl.editor editor num.names1 >' bbl.editors'bbl.editorif
FUNCTION format.editors editor "editor" format.names duplicateempty 'skip"" * get.bbl.editorcapitalize(" swap
*)" * * ifFUNCTION format.noteempty "" note 1 1 substringduplicate "" = 'skipoutput.statemid.sentence = "l
change.caseif note 2 global.maxsubstring * "note" bibinfo.check if
FUNCTION format.title title duplicateempty 'skip"t"change.case if'title"bibinfo.check
FUNCTION format.full.names 's := "" 't := 1 'nameptr := s num.names'numnames := numnames'namesleft :=
namesleft0 >snameptr"vv ll" format.name 't := nameptr 1 ; namesleft 1 ; ", " * t * s nameptr "ll"
format.name duplicate "others" = 't := popif t "others" = "" * bbl.etal * numnames 2 ; ", " * 'skipif
bbl.and space.word * t * ifif 't ifnameptr1 +' nameptr := namesleft1 -' namesleft := while
FUNCTION author.editor.key.full author emptyeditoreempty key emptycite 1 3 substring'keyif editor
format.full.names ifauthorformat.full.namesif
FUNCTION author.key.full author emptykeyempty cite13substring 'key ifauthorformat.full.namesif
FUNCTION editor.key.full editor emptykeyempty cite13substring 'key ifeditorformat.full.namesif
FUNCTION make.full.names type"book" = type "inbook" = or 'author.editor.key.full type"proceedings" ='
editor.key.full'author.key.fullif if
FUNCTION output.bibitem newline["write label write")]"make.full.namesduplicate short.list = pop*if
"]" * writecite write""write newline""before.all'output.state :=
FUNCTION n.dashify 't := "" t emptynott11substring "-" = t 1 2 substring"--" = not" --" * t2global.max
substring't := t11substring "-" = "-" * t 2 global.maxsubstring 't := whileif t 1 1 substring*t2global.max
substring't := if while
FUNCTION word.in bbl.in ":" * " * " *
FUNCTION format.date year "year" bibinfo.check duplicateempty "empty year in " cite*"; setto????" *
warningpop"????"skip ifextra.label*FUNCTION format.yearyear"year"bibinfo.checkduplicate empty"emptyyearin
* "; set to ????? * warningpop "????" ifextra.label * ("swap *")" * FUNCTION format.btitle title
"title" bibinfo.check duplicateempty 'skipif FUNCTION either.or.check empty'pop "can't use both "

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swap*"fieldsin"*cite* warningif FUNCTION format.bvolume volume empty""bbl.volumevolumetie.or.space.prefix"v
empty'pop swapbbl.ofspace.word*swap emphasize * if"volumeandnumber" numbereither.or.checkif FUNC-
TION format.number.series volume emptynumberempty series field.or.null series emptynumber"number"bibinfo.check
number tie.or.space.prefix "number" bibinfo.check * * bbl.in space.word * series "series" bibinfo.check * ifif
"" if

FUNCTION format.edition edition duplicateempty 'skipoutput.statemid.sentence = "l""t"if change.case"edition"b
bbl.edition*if INTEGERS multiresult FUNCTION multi.page.check 't := 0 'multiresult := multiresult
not t emptynotandt11substring duplicate" - " = swap duplicate", " = swap "+" = or or 1 'multiresult
:= t 2 global.maxsubstring 't := ifwhile multiresult FUNCTION format.pages pages duplicateempty
'skipduplicate multi.page.check bbl.pages swapn.dashifybbl.pageswap iftie.or.space.prefix"pages"bibinfo.check*
*if FUNCTION format.journal.pages pages duplicateempty 'popswap duplicateempty poppop format.pages
" " * swapn.dashify"pages"bibinfo.check*if ifFUNCTION format.vol.num.pagesvolume field.or.nullduplicate
empty'skip "volume" bibinfo.check ifformat.year*

FUNCTION format.chapter.pages chapter empty""typeempty bbl.chapter type "l" change.case"type"bibinfo.check
chapter tie.or.space.prefix "chapter" bibinfo.check * * if

FUNCTION format.booktitle booktitle "booktitle" bibinfo.check FUNCTION format.in.ed.booktitle
format.booktitle duplicateempty 'skippeditor"editor"format.names.edduplicate empty'pop " " * get.bbl.editor
capitalize "(" swap*), " **swap * ifword.inswap * ifFUNCTION format.thesis.typetypeduplicate empty'pop
swappop "t" change.case"type"bibinfo.checkif FUNCTION format.tr.number number "number" bib-
info.check type duplicateempty popbbl.techrep'skip if"type"bibinfo.checkswap duplicateempty pop"t"change.case
tie.or.space.prefix * * ifFUNCTION format.article.crossrefword.in"" * crossref * ""*FUNCTION format.book.cross
empty"emptyvolumein"cite * ""'s crossref of " * crossref * warningpop word.in bbl.volume swaptie.or.space.prefix"volum
*bbl.ofspace.word * if " " * crossref * "" * FUNCTION format.incoll.inproc.crossref word.in " " *
crossref * "" * FUNCTION format.org.or.pub 't := "" address emptyempty and 'skiptempty ad-
dress "address" bibinfo.check * t * address empty'skip ", " * address "address" bibinfo.check * ifif
ifFUNCTION format.publisher.addresspublisher"publisher"bibinfo.checkformat.org.or.pub

FUNCTION format.organization.address organization "organization" bibinfo.check format.org.or.pub
FUNCTION print.url url duplicateempty pop""new.sentenceurlprefix"" * swap * "" * if
FUNCTION print.doi doi duplicateempty pop""new.sencedoiprefix"" * swap * "" * if
FUNCTION print.eprint eprint duplicateempty pop""new.senceduplicate "http://arxiv.org/abs/"
swap*"arXiv:" * swap * "" * if

FUNCTION print.pubmed pubmed duplicateempty pop""new.sentencepubmedprefix"" * swap * ""
* if

FUNCTION webpage "output.bibitem format.authors "author" output.check author format.key output
author emptyformat.title"title"output.checknew.blockformat.date"year"output.checkdate.blockformat.date"year"out
print.url output fin.entry

FUNCTION article "output.bibitem format.authors "author" output.check author format.key output
new.block format.title "title" output.check new.block crossref missingjournal"journal"bibinfo.check"journal"output.che
format.journal.pages new.sentence format.note output fin.entry FUNCTION book "output.bibitem author
emptyformat.editors"authorandeditor"output.checkeditorformat.keyoutputformat.authorsoutput.nonnullcrossrefm
"author and editor" editor either.or.check 'skipif ifformat.btitle"title"output.checkcrossrefmissing for-
mat.bvolume output format.number.series output format.edition output format.publisher.address output
format.book.crossref output.nonnull ifformat.date"year"output.checknew.sentenceprint.urloutputprint.doioutputprint

FUNCTION inbook "output.bibitem author emptyformat.editors"authorandeditor"output.checkeditorformat.key
"author and editor" editor either.or.check 'skipif ifformat.btitle"title"output.checkcrossrefmissing for-
mat.bvolume output format.number.series output format.edition output format.publisher.address output
format.book.crossref output.nonnull ifformat.date"year"output.checkformat.pages"pages"output.checknew.sentencepr

FUNCTION incollection "output.bibitem format.authors "author" output.check author format.key out-
put new.block format.title "title" output.check new.block crossref missingformat.in.ed.booktitle"booktitle"output.checkf
format.date "year" output.check format.pages "pages" output.check new.sentence print.url output print.doi
output print.eprint output print.pubmed output format.note output fin.entry FUNCTION inproceedings
"output.bibitem format.authors "author" output.check author format.key output new.block format.title "ti-
tle" output.check new.block crossref missingformat.in.ed.booktitle"booktitle"output.checkformat.bvolumeoutputformat

format.organization.address output organization "organization" bibinfo.check output format.publisher.address
 output ifformat.incoll.inproc.crossrefoutput.nonnullif format.date output format.pages "pages" out-
 put.check new.sentence print.url output print.doi output print.eprint output print.pubmed output format.note
 output fin.entry FUNCTION conference inproceedings FUNCTION manual "output.bibitem format.authors
 output author format.key output format.btitle "title" output.check format.edition output organization "or-
 ganization" bibinfo.check output address "address" bibinfo.check output format.date "year" output.check
 new.sentence print.url output print.doi output print.eprint output print.pubmed output format.note output
 fin.entry

FUNCTION mastersthesis "output.bibitem format.authors "author" output.check author format.key
 output format.btitle "title" output.check bbl.mthesis format.thesis.type output.nonnull school "school" bib-
 info.warn output address "address" bibinfo.check output format.date "year" output.check new.sentence
 print.url output print.doi output print.eprint output print.pubmed output format.note output fin.entry

FUNCTION misc "output.bibitem format.authors output author format.key output format.title output
 howpublished "howpublished" bibinfo.check output format.date "year" output.check new.sentence print.url
 output print.doi output print.eprint output print.pubmed output format.note output fin.entry FUNCTION
 phdthesis "output.bibitem format.authors "author" output.check author format.key output format.btitle
 "title" output.check bbl.phdthesis format.thesis.type output.nonnull school "school" bibinfo.warn output ad-
 dress "address" bibinfo.check output format.date "year" output.check new.sentence print.url output print.doi
 output print.eprint output print.pubmed output format.note output fin.entry

FUNCTION proceedings "output.bibitem format.editors output editor format.key output format.btitle
 "title" output.check format.bvolume output format.number.series output publisher emptyformat.organization.address
 format.date "year" output.check new.sentence print.url output print.doi output print.eprint output print.pubmed
 output format.note output fin.entry

FUNCTION techreport "output.bibitem format.authors "author" output.check author format.key out-
 put format.btitle "title" output.check format.tr.number output.nonnull institution "institution" bibinfo.warn
 output address "address" bibinfo.check output format.date "year" output.check new.sentence print.url out-
 put print.doi output print.eprint output print.pubmed output format.note output fin.entry

FUNCTION unpublished "output.bibitem format.authors "author" output.check author format.key
 output format.title "title" output.check format.date "year" output.check new.sentence print.url output print.doi
 output print.eprint output print.pubmed output format.note "note" output.check fin.entry

FUNCTION default.type misc READ FUNCTION sortify purify"l"change.case INTEGERS len
 FUNCTION chop.word 's := 'len := s 1 len substring= slen1 + global.max substring'sif FUNCTION
 format.lab.names 's := "" 't := s 1 "vv ll" format.namesnum.names duplicate2 > pop " " * bbl.etal * 2 ;
 'skips2" f fvlljj" format.name "others" = " " * bbl.etal * bbl.and space.word * s 2 "vv ll" format.name*if
 ifif

FUNCTION author.key.label author emptykeyempty cite13substring 'key ifauthorformat.lab.namesif

FUNCTION author.editor.key.label author emptyeditoreempty key emptycite 1 3 substring'keyif ed-
 itor format.lab.names ifauthorformat.lab.namesif

FUNCTION editor.key.label editor emptykeyempty cite13substring 'key ifeditorformat.lab.namesif

FUNCTION calc.short.authors type"book" = type "inbook" = or 'author.editor.key.label type"proceedings" =
 editor.key.label'author.key.labelif if'short.list :=

FUNCTION calc.label calc.short.authors short.list "(" * year duplicateempty pop"????purify -1 4
 substringif * 'label :=

FUNCTION sort.format.names 's := 1 'nameptr := "" s num.names'numnames := numnames'namesleft :=
 namesleft0 > snameptr"vllfjj" format.name 't := nameptr 1 ; " " * namesleft 1 = t "others" = and
 "zzzzz" * t sortify * ifsortify*if nameptr 1 + 'nameptr := namesleft 1 - 'namesleft := while

FUNCTION sort.format.title 't := "A " 2 "An " 3 "The " 4 t chop.word chop.word chop.word sor-
 tify 1 global.maxsubstring FUNCTION author.sort author emptykeyempty "to sort, need author or key
 in " cite*warning "" key sortify ifauthorsort.format.namesif FUNCTION author.editor.sort author
 emptyeditoreempty key empty"tosort, needauthor, editor, orkeyin"cite * warning""keysortifyif editor
 sort.format.names ifauthorsort.format.namesif FUNCTION editor.sort editor emptykeyempty "to sort,
 need editor or key in " cite*warning "" key sortify ifeditorsort.format.namesif FUNCTION presort

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calc.label label sortify " " * type"book" = type "inbook" = or 'author.editor.sort type"proceedings" =
editor.sort'author.sortif !lentry.max substring'sort.label := sort.label*" "*titlefield.or.nullsort.format.title*
lentry.max substring'sort.key :=
    ITERATE presort STRINGS last.label next.extra INTEGERS last.extra.num number.label FUNC-
TION initialize.extra.label.stuff 0 int.to.chr'last.label := ""'next.extra := 0'last.extra.num := 0'number.label :=
FUNCTION forward.passlast.labellabel = last.extra.num1 +' last.extra.num := last.extra.numint.to.chr
'extra.label := "a" chr.to.int'last.extra.num := ""'extra.label := label'last.label := if number.label 1
+ 'number.label := FUNCTION reverse.pass next.extra "b" = "a" 'extra.label := 'skipif extra.label
'next.extra := extra.label duplicateempty 'skip""swap * "" * if'extra.label := labelextra.label *' label :=
EXECUTE initialize.extra.label.stuffITERATE forward.passREVERSEreverse.passFUNCTION bib.sort.orders
substring'sort.key := ITERATE bib.sort.order FUNCTION begin.bib preambleempty 'skip preamble writenewline
if"thebibliography"number.labelint.to.str * "" * writenewline "" writenewline "[1]1" writenewline "[2]2"
writenewline "[1]1" writenewline "doi:" writenewline "arXiv:" writenewline "URL:" writenewline "pmid:"
writenewline "[1]http://dx.doi.org/11" writenewline "[1]pmid:11" writenewline "[2]2" writenewline ""
writenewline EXECUTE begin.bib EXECUTE init.state.consts EXECUTE init.web.variables ITERATE
call.typeFUNCTIONend.bibnewline "

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