

ENTRY address author booktitle chapter doi edition editor eid howpublished institution isbn journal key month note number organization pages publisher school series title type url volume year label extra.label sort.label short.list INTEGERS output.state before.all mid.sentence after.sentence after.block 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 = add.period writenewline "" writeoutput.statebefore.all = ' write add.period"" * write ifif mid.sentence 'output.state := ifFUNCTIONoutputduplicate empty'pop 'output.nonnull ifFUNCTIONoutputempty'pop "empty " t * " in " * cite*warning 'output.nonnull ifFUNCTIONfin.entryadd.period writenewline

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 FUNCTION add.blank " " * before.all 'output.state :=

FUNCTION date.block add.blank

FUNCTION not 0 1 ifFUNCTIONand'skip pop0if FUNCTION or pop1'skip ifSTRINGSzFUNCTIONrem not z 1 2 substringduplicate "" = z 3 global.maxsubstring 'z := * popz11substring z 2 global.maxsubstring 'z := duplicate"." = ' pop * ifif whileFUNCTIONnew.block.checkbempty swapempty and 'skip'new.blockif FUNCTION field.or.null duplicateempty pop""'skip ifFUNCTIONemphasizeduplicate empty'pop "" "" swap*"" * if FUNCTION tie.or.space.prefix duplicatetext.length 3 j " " " " 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 "edition"

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 "PhD 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 Computing Surveys"

MACRO acta "Acta Informatica"

MACRO cacm "Communications of the ACM"

MACRO ibmjrd "IBM Journal of Research and Development"

MACRO ibmsj "IBM Systems Journal"

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MACRO ieee "IEEE Transactions on Software Engineering"
MACRO ieetc "IEEE Transactions on Computers"
MACRO ieetcad "IEEE Transactions on Computer-Aided Design of Integrated Circuits"
MACRO ipl "Information Processing Letters"
MACRO jacm "Journal of the ACM"
MACRO jcsc "Journal of Computer and System Sciences"
MACRO scp "Science of Computer Programming"
MACRO sicomp "SIAM Journal on Computing"
MACRO tocs "ACM Transactions on Computer Systems"
MACRO tods "ACM Transactions on Database Systems"
MACRO tog "ACM Transactions on Graphics"
MACRO toms "ACM Transactions on Mathematical Software"
MACRO toois "ACM Transactions on Office Information Systems"
MACRO toplas "ACM Transactions on Programming Languages and Systems"
MACRO tcs "Theoretical Computer Science"
FUNCTION bibinfo.check swapduplicate missingpop
pop""duplicate emptyswap popswap popif ifFUNCTIONbibinfo.warnswap duplicatemissing swap"missing" swap
* " in " * cite*warning pop""duplicate emptyswap "empty " swap*"in" * cite * warningswap popif
ifFUNCTIONformat.urlurlduplicate emptypop "" "" swap*"" * if
INTEGERS nameptr namesleft numnames
STRINGS bibinfo
FUNCTION format.names 'bibinfo := duplicateempty 'skip's := ""'t := 1' nameptr := snum.names
'numnames := numnames 'namesleft := namesleft 0 ; s nameptr "vv ll f jj" format.name remove.dotsbibinfo.bibinfo.check
nameptr1 > namesleft1 > ", " * t*snameptr"ll" format.name duplicate"others" = 't :=pop if"others" =
"" * bbl.etal*bbl.andspace.word * t*if if'tif 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 FUNCTION get.bbl.editor editor num.names1 >
bbl.editors'bbl.editorif
FUNCTION format.editors editor "editor" format.names duplicateempty 'skip"" * get.bbl.editor"("swap
* ") * * ifFUNCTIONformat.isbnisbn"isbn"bibinfo.checkduplicate empty'skip new.block "ISBN "
swap*if
FUNCTION format.doi doi empty""new.block""DOI * ""*if FUNCTION format.note note empty""note11substring
duplicate"" = ' skip output.state mid.sentence = "l" "u" ifchange.case ifnote2global.max substring*"note"bibinfo.check
FUNCTION format.title title duplicateempty 'skip"t" change.case if"title"bibinfo.checkFUNCTION format.full.names
'numnames := numnames 'namesleft := namesleft 0 ; s nameptr "vv ll" format.name't := nameptr1 >
namesleft1 > ", " * t*snameptr"ll" format.name duplicate"others" = 't :=pop if"others" = "" * bbl.etal*bbl.andspace.
if'tif nameptr 1 + 'nameptr := namesleft 1 - '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 capitalize ":" * " " *
FUNCTION format.date year "year" bibinfo.check duplicateempty "empty year in " cite*";setto????" *
warning pop"????"skip ifextra.label*before.all'output.state := "("swap * ") * FUNCTION format.btitle
title "title" bibinfo.check duplicateempty 'skipemphasizeif FUNCTION either.or.check empty'pop "can't

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use both " swap*" *fieldsin*"*cite * warning*if* FUNCTION format.bvolume volume empty"" *bbl.volumevolumetie.or.space*
empty'*pop* emphasize ", " * swap**if* " volume and number" number either.or.check *if*FUNCTION format.number.series
number emptyseries*field.or.nullseriesempty* number "number" bibinfo.check output.state mid.sentence =
bbl.number bbl.number capitalize *if*number*tie.or.space.prefix*" number" bibinfo.check***bbl.in.space.word**
series"series"bibinfo.check * *if* *if*"*if*

FUNCTION format.edition edition duplicateempty 'skipoutput.state mid.sentence = "l""t"*if* change.case"edition" *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 := *if*while multiresult FUNCTION format.pages pages duplicateempty
'skipduplicate multi.page.check bbl.pages swap*n.dashify*bbl.pagesswap *iftie.or.space.prefix*"pages"bibinfo.check*
**if* FUNCTION format.journal.pages pages duplicateempty 'popswap duplicateempty poppop format.pages
": " * swap*n.dashify*"pages"bibinfo.check**if* *if*FUNCTION format.journal.eideid"eid"bibinfo.checkduplicate
empty'*pop* swapduplicate empty'*skip* ": " * *if*swap * *if*FUNCTION format.vol.num.pagesvolume*field.or.nullduplicate*
empty'*skip* "volume" bibinfo.check *if*number"number"bibinfo.checkduplicate empty'*skip* swapduplicate
empty"there'sanumberbutnovolumein"cite * warning'*skip* *if*swap "(" swap*)" " * *if* *

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 emphasize FUNCTION format.in.ed.booktitle
format.booktitle duplicateempty 'skipformat.bvolumeduplicate empty'*pop* ", " swap* * *if* editor "edi-
tor" format.names.ed duplicateempty 'pop"" * *get.bbl.editor*"("swap * ") " * * swap**if* word.in swap**if*
FUNCTION format.thesis.type type duplicateempty 'popswap pop"t"*change.case* "type" bibinfo.check
*if*FUNCTION format.tr.numbernumber"number"bibinfo.checktypeduplicate emptypop bbl.techrep 'skip*if*
"type" bibinfo.check swapduplicate emptypop "t" change.casetie.or.space.prefix***if* FUNCTION for-
mat.article.crossref word.in " " * crossref * "" * FUNCTION format.book.crossref volume duplicateempty
"empty volume in " cite*"/*scrossrefof*"*crossref*warning popword.inbbl.volumecapitalizeswap tie.or.space.prefix
"volume" bibinfo.check * * bbl.of space.word * *if*" " * crossref * ""*FUNCTION format.incoll.inproc.crossrefword.in"
t emptyand'*skip* address "address" bibinfo.check * t empty'*skip* address empty'*skip* ": " * *ift* * *if*
*if*FUNCTION format.publisher.addresspublisher"publisher"bibinfo.warnformat.org.or.pub

FUNCTION format.organization.address organization "organization" bibinfo.check format.org.or.pub

FUNCTION article output.bibitem format.authors "author" output.check author format.key output
format.date "year" output.check date.block format.title "title" output.check new.block crossref missing*journal*"*journal*"*b*
eid emptyformat.journal.pagesformat.journal.eid*if* format.doi output new.block format.url output new.block
format.note output fin.entry FUNCTION book output.bibitem author emptyformat.editors"authorandeditor"output.ch
"author and editor" editor either.or.check 'skip*if* *if*format.date"year"output.checkdate.block format.btitle"title"output.
format.bvolume output new.block format.number.series output format.edition output new.sentence format.publisher.address
output new.block format.book.crossref output.nonnull *if*format.isbnoutputformat.doioutputnew.block format.urloutput

FUNCTION inbook output.bibitem author emptyformat.editors"authorandeditor"output.checkeditorformat.keyo
"author and editor" editor either.or.check 'skip*if* *if*format.date"year"output.checkdate.block format.btitle"title"output.
format.bvolume output format.chapter.pages "chapter and pages" output.check new.block format.number.series
output format.edition output new.sentence format.publisher.address output format.chapter.pages "chap-
ter and pages" output.check new.block format.book.crossref output.nonnull *if*crossrefmissing format.isbn
output 'skip*if* format.pages "pages" output.check format.doi output new.block format.url output new.block
format.note output fin.entry

FUNCTION incollection output.bibitem format.authors "author" output.check author format.key out-
put format.date "year" output.check date.block format.title "title" output.check new.block crossref missingformat.in.ed.b
format.pages "pages" output.check format.doi output new.block format.url output new.block format.note
output fin.entry FUNCTION inproceedings output.bibitem format.authors "author" output.check author
format.key output format.date "year" output.check date.block format.title "title" output.check new.block
crossref missingformat.in.ed.booktitle"booktitle"output.checkformat.number.seriesoutputnew.sentencepublisherempty
format.organization.address output organization "organization" bibinfo.check output format.publisher.address
output *if*format.isbnoutputformat.incoll.inproc.crossrefoutput.nonnull*if* format.pages "pages" output.check
format.doi output new.block format.url output new.block format.note output fin.entry FUNCTION con-
ference inproceedings FUNCTION manual output.bibitem format.authors output author format.key

output format.date "year" output.check date.block format.btitle "title" output.check organization address new.block.checkb organization "organization" bibinfo.check output address "address" bibinfo.check output format.edition output format.doi output new.block format.url output new.block format.note output fin.entry

FUNCTION mastersthesis output.bibitem format.authors "author" output.check author format.key output format.date "year" output.check date.block format.btitle "title" output.check new.block bbl.mthesis format.thesis.type output.nonnull school "school" bibinfo.warn output address "address" bibinfo.check output format.doi output new.block format.url output new.block format.note output fin.entry

FUNCTION misc output.bibitem format.authors output author format.key output format.date "year" output.check date.block format.title output new.block howpublished "howpublished" bibinfo.check output format.doi output new.block format.url output new.block format.note output fin.entry FUNCTION phdthesis output.bibitem format.authors "author" output.check author format.key output format.date "year" output.check date.block format.btitle "title" output.check new.block bbl.phdthesis format.thesis.type output.nonnull school "school" bibinfo.warn output address "address" bibinfo.check output format.doi output new.block format.url output new.block format.note output fin.entry

FUNCTION proceedings output.bibitem format.editors output editor format.key output format.date "year" output.check date.block format.btitle "title" output.check format.bvolume output format.number.series output new.sentence publisher empty *format.organization.addressoutputorganization"organization" bibinfo.checkoutput* format.isbn output format.doi output new.block format.url output new.block format.note output fin.entry

FUNCTION techreport output.bibitem format.authors "author" output.check author format.key output format.date "year" output.check date.block format.title "title" output.check new.block format.tr.number output.nonnull institution "institution" bibinfo.warn output address "address" bibinfo.check output format.doi output new.block format.url output new.block format.note output fin.entry

FUNCTION unpublished output.bibitem format.authors "author" output.check author format.key output format.date "year" output.check date.block format.title "title" output.check format.doi output new.block format.url output new.block 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 ifi f

FUNCTION author.key.label author emptykeyempty cite13substring 'key ifauthor format.lab.namesif

FUNCTION author.editor.key.label author emptyeditoreempty key emptycite 1 3 substring'keyif editor format.lab.names ifauthor format.lab.namesif

FUNCTION editor.key.label editor emptykeyempty cite13substring 'key ifeditor format.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 short.list key field.or.null = or pop""'skip if'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 := 'skipif t sortify * t sortify * ifnameptr1 + ' nameptr := namesleft1 - ' namesleft := while

FUNCTION sort.format.title 't := "A " 2 "An " 3 "The " 4 t chop.word chop.word chop.word sortify 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 calc.label label sortify " " * type"book" = type "inbook" = or 'author.editor.sort type"proceedings" = ' editor.sort'author.sortif iflentry.max substring'sort.label := sort.label*" " * titlefield.or.nullsort.format.title* lentry.max substring'sort.key :=

ITERATE presort SORT STRINGS last.label next.extra INTEGERS last.extra.num last.extra.num.extended last.extra.num.blank number.label FUNCTION initialize.extra.label.stuff 0 int.to.chr'last.label := ""'next.extra :=

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0'last.extra.num := "a" chr.to.int 1 - 'last.extra.num.blank := last.extra.num.blank 'last.extra.num.extended
:= 0 'number.label := FUNCTION forward.pass last.label label = last.extra.num 1 + 'last.extra.num :=
last.extra.num "z" chr.to.int > "a" chr.to.int 'last.extra.num := last.extra.num.extended 1 + 'last.extra.num.extended
:= 'skip if last.extra.num.extended last.extra.num.blank ; last.extra.num.extended int.to.chr last.extra.num int.to.chr
* 'extra.label := last.extra.num int.to.chr 'extra.label := if "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" 'ex-
tra.label := 'skip if extra.label 'next.extra := extra.label duplicate empty 'skip "" swap * "" * if extra.label :=
label extra.label * label := EXECUTE initialize.extra.label.stuff ITERATE forward.pass REVERSE reverse.pass FU-
substring 'sort.key := ITERATE bib.sort.order SORT FUNCTION begin.bib preamble empty 'skip preamble
writenewline if "the bibliography" number.label int.to.str * "" * writenewline "[1]1" writenewline "[1]1"
writenewline "URL " writenewline "" writenewline "[1]DOI:1" writenewline EXECUTE begin.bib EX-
ECUTE init.state.consts ITERATE call.type FUNCTION end.bib newline "

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