ENTRY address archive author booktitle chapter collaboration edition editor eid eprint howpublished institution isbn issn journal key month note number numpages organization pages publisher school series title type url volume year issue section epilog volumetitle transjournal transsection transvolume transnumber transissue transpages transyear   label

FUNCTION not   0   1 if$FUNCTION and' skip$ pop0if FUNCTION or   pop1$'skip$ if

FUNCTION hang 1 skip$while$

STRINGS string.length.s INTEGERS string.length.i FUNCTION string.length 'string.length.s := 0 'string.length.i := string.length.s 1 1 substring"" $= not string.length.i 1 +' string.length.i := string.length.s 2 global.max$ substring$' string.length.s := while$ string.length.i

STRINGS strip.s strip.t INTEGERS strip.i

FUNCTIONstrip.leading 'strip.t := 'strip.s := strip.t string.length 'strip.i := strip.s 1 strip.i substring$strip.t =$ $strip.s strip.i 1 + global.max$ substring$strip.s if$

FUNCTIONstrip.trailing 'strip.t := 'strip.s := strip.t string.length 'strip.i := strip.s -1 strip.i substring$strip.t =$ $strip.s - 1 strip.i - global.max$ substring$strip.s if$

STRINGS trim.s trim.t FUNCTIONtrim 'trim.s := trim.s -1 1 substring$' trim.t := trim.t empty$ trim.t string.length 0 ¿ and   trim.s -2 global.max$substring$ 'trim.s := while$trim.s$

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 = " " * write$output.state after.block = add.period■ write$newline$ "" write$output.state before.all =' write$ add.period$"" * write$ ifif mid.sentence 'output.state := if$s FUNCTION output duplicate$ empty$'pop$ 'output.nonnull if$FUNCTION output.check' t := duplicate$ emptypop "empty " t * " in " * cite$*warning$ 'output.nonnull if

FUNCTION format.epilog epilog duplicate$empty$ pop$*if$

FUNCTION fin.entry format.epilog duplicate$empty$ 'pop$'write$ if$newline$

FUNCTION new.block output.state before.all = 'skip$after.block' output.state :=if FUNCTION new.sentence■ output.state after.block = 'skip$output.state before.all =' skip$ after.sentence 'output.state := ifif FUNCTION add.blank " " * before.all 'output.state :=

FUNCTION date.block add.blank

STRINGS z FUNCTION remove.dots 'z := "" z empty$not z1 2 substring "." = z 3 global.max$substring 'z := ""." *   z 1 1 substring$z 2 global.max$ substring$' z := duplicate$ "." = 'pop$*if$ if$while$ FUNCTION new.block.check$a empty$'skip$ 'new.block if$FUNCTION new.block.check$b empty$ swap$empty$ and 'skip$' new.block$if$■ FUNCTION new.sentence.check$a empty$'skip$ 'new.sentence if$FUNCTION new.sentence.check$b empty$ swap$empty$■ and 'skip$' new.sentence$if$ FUNCTION field.or.null duplicate$empty$ pop$""' skip$ if$FUNCTION emphasize duplicate$■ empty$pop$"" "" swap$*""*if$ FUNCTION bolden duplicate$empty$ pop$""""**swap** * "" * if$FUNCTION tie.or.space.pref◄ text.length3 < " """"if$ swap$

FUNCTION capitalize "u" change.case$"t" change.case$

FUNCTION space.word " " swap$*""* $FUNCTION bbl.and" and"$

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 "vol"

FUNCTION bbl.of "of"

FUNCTION bbl.number "no"

FUNCTION bbl.nr "no"

FUNCTION bbl.in "in"

FUNCTION bbl.pages "pp"

FUNCTION bbl.page "p"

FUNCTION bbl.eidpp "pages"

FUNCTION bbl.chapter "chap"

FUNCTION bbl.techrep "Tech. Rep."

FUNCTION bbl.mthesis "Master's thesis"

FUNCTION bbl.phdthesis "Ph.D. thesis"
FUNCTION bbl.first "1st"
FUNCTION bbl.second "2nd"
FUNCTION bbl.third "3rd"
FUNCTION bbl.fourth "4th"
FUNCTION bbl.fifth "5th"
FUNCTION bbl.st "st"
FUNCTION bbl.nd "nd"
FUNCTION bbl.rd "rd"
FUNCTION bbl.th "th"
MACRO jan "Jan."
MACRO feb "Feb."
MACRO mar "Mar."
MACRO apr "Apr."
MACRO may "May"
MACRO jun "Jun."
MACRO jul "Jul."
MACRO aug "Aug."
MACRO sep "Sep."
MACRO oct "Oct."
MACRO nov "Nov."
MACRO dec "Dec."
FUNCTION eng.ord duplicate"1"$swap$ * -2 1 substring"1" $= bbl.th*duplicate$ -1 1 substring$duplicate$
"1" $=$ pop$bbl.st * duplicate$ "2" $=$ pop$bbl.nd * "3" = bbl.rd*bbl.th*if$ ifif if
FUNCTION bibinfo.check swap$duplicate$ missingpop pop""$duplicate$ empty$swap$ pop$swap$ popif if$FUNCTIONbib$
duplicate$missing$ swap"$missing$"$swap$ * " in " * cite$*warning$ pop""$duplicate$ empty$swap$ "empty "
swap$*"in"*cite$ * warning$swap$ popif if$FUNCTION format.eprinteprintduplicate$ empty$'skip$ "(Preprint
" swap""$archiveempty$ 'skip"[" $* archive * $"]"$*if$ "" * swap$*"" * *$")" $* if$
FUNCTION format.url url empty""""$url * $""$*if$
STRINGS bibinfo INTEGERS nameptr namesleft numnames
FUNCTION format.names 'bibinfo := duplicate$empty$ 'skip$'s := ""'t := 1'nameptr := snum.names$
'numnames := numnames 'namesleft := namesleft 0 ¿ s nameptr "vv ll jj f " format.name$remove.dotsbibinfobibinfo.chec$
$nameptr1 > namesleft1 > $","$ * t*snameptr$"ll"$format.name$ duplicate"$others$" $= 't :=pop$ if$t$"$others$" $=$
"" $* bbl.etalemphasize*bbl.andspace.word * t*if$ if$'tif$ nameptr 1 + 'nameptr := namesleft 1 - 'namesleft :=
whileif FUNCTION format.names.ed 'bibinfo := duplicate$empty$ 'skip$'s := ""'t := 1'nameptr := snum.names$
'numnames := numnames 'namesleft := namesleft 0 ¿ s nameptr "f vv ll jj" format.name$remove.dotsbibinfobibinfo.chec$
$nameptr1 > namesleft1 > $","$ * t*snameptr$"ll"$format.name$ duplicate"$others$" $= 't :=pop$ if$t$"$others$" $=$
" " * bbl.etal emphasize *   bbl.and space.word * t * ifif 't if$nameptr1 +' nameptr := namesleft1 -'$
$namesleft := while$ if$FUNCTION format.authorsauthor$"author" format.names$duplicate$ empty$'skip$
collaboration "collaboration" bibinfo.check duplicate$empty$ 'skip"("$swap * $")" $* if*if$ FUNCTION get.bbl.editor
editor num.names1 $>'$ $bbl.editors'bbl.editorif$
FUNCTION format.editors editor "editor" format.names duplicate$empty$ 'skip"" $* $"(" $* get.bbl.editor * $")"$*if$
FUNCTION format.editors.inline editor "editor" format.names duplicate$empty$ 'skip$bbl.editor$"" $* swap * $
if
FUNCTION format.isbn isbn "isbn" bibinfo.check duplicate$empty$ 'skip"$ISBN$"$swap$ * if
FUNCTION format.issn issn "issn" bibinfo.check duplicate$empty$ 'skip"$ISSN$"$swap$ * if
FUNCTION format.note note empty""$note11substring$ duplicate"" $='$ $skip$ output.state mid.sentence
$= $"l" "u" if$change.case$ if$note2global.max$ substring$*$"$note$"$bibinfo.checkif$
FUNCTION format.title title duplicate$empty$ 'skip$"t"change.case$ if$'title$"$bibinfo.checkFUNCTIONoutput.bibitem$
"" write$cite$ write""$write$ newline""$before.all'output.state :=$
FUNCTION n.dashify 't := "" t empty$nott11substring$ "-" $=$ t 1 2 substring"$--$" $= not$" $- -$" $* t2global.max$
substring$'t := t11substring$ "-" $=$ "-" * t 2 global.max$substring$ 't := whileif t 1 1 substring$*t2global.max$
substring$'t := if$ while

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FUNCTION word.in bbl.in ” ” *

FUNCTION format.date   ”” duplicate*empty* year ”year” bibinfo.check duplicate*empty*   swap′*skip*
”there’s a month but no year in ” cite*∗warning* if∗*swap* ’skip*swap* ” ” * swap*if* * remove.dots if*duplicate*
empty′*skip* before.all ’output.state := ” ” swap∗*if* FUNCTION format.btitle title ”title” bibinfo.check
duplicate*empty* ’skip*emphasizeif* FUNCTION either.or.check empty′*pop* ”can’t use both ” swap∗”*fieldsin*”∗▮
cite * warning*if* FUNCTION format.bvolume volume empty””*series*”*series*”*bibinfo.checkempty* bbl.volume▮
volume tie.or.space.prefix ”volume” bibinfo.check * * volumetitle empty′*skip* ” ” volumetitle ”volumetitle”
bibinfo.check emphasize * * if′(”*series*”*series*”*bibinfo.checkemphasize* ∗ ”” ∗ *bbl.volume* ∗ *volumetie.or.space.prefix*”*vc*
”volume and number” number either.or.check if*FUNCTIONformat.number.seriesvolumeempty* number
empty*seriesfield.or.nullseriesempty* number ”number” bibinfo.check   ”(” series ”series” bibinfo.check
emphasize * ” ” * bbl.number * number tie.or.space.prefix ”number” bibinfo.check * ”)” * * if*if* ”” if

FUNCTION is.num chr.to.int*duplicate* ”0” chr.to.int< *notswap* ”9” chr.to.int> *notand*

FUNCTION extract.num duplicate′*t* := ””′*s* := *tempty* not t 1 1 substring*t2global.max* substring′*t* :=
duplicate is.num s swap∗′*s* := *pop* ”” ’t := if*while* s empty′*skip* pops*if*

FUNCTION convert.edition extract.num ”l” change.case′*s* := *s*”*first*” = *s*”1” = *orbbl.first*′*t* :=*s*”*second*” = *s*”2” =
is.num s eng.ord ’t := edition ’t := if*if* if*if* if*if* t

FUNCTION format.edition edition duplicate*empty* ’skip*convert.editionoutput.statemid.sentence* = ”l””*t*”*if*▮
change.case”*edition*”*bibinfo.check*””∗*bbl.edition*∗*if* INTEGERS multiresult FUNCTION multi.page.check
’t := 0 ’multiresult := multiresult not t empty*notandt11substring* duplicate” − ” = *swap* duplicate”,” =
swap ”+” = or or 1 ’multiresult :=   t 2 global.max*substring* ’t := if*while* multiresult FUNCTION
format.pages pages duplicate*empty* ’skip*duplicate* multi.page.check bbl.pages swap*n.dashifybbl.pagesswap*
if*tie.or.space.prefix*”*pages*”*bibinfo.check* ∗ ∗*if* FUNCTION format.journal.pages   pages duplicate*empty*
’pop*swap* ” ” * swap*n.dashify*”*pages*”*bibinfo.check* ∗ *if* FUNCTION format.journal.eid eid ”eid” bib-
info.check duplicate*empty* ’skip*swap* duplicate*empty* ’skip*”*∗*if* swap*numpagesempty* ’skip*bbl.eidppnumpagestie.or.space*
∗ ”)” * * if*if* * FUNCTION format.vol.num.pages volume field.or.null section field.or.null strip.leading
section field.or.null strip.trailing trim duplicate*empty* ’skip*”volume”bibinfo.checkif* bolden issue ”issue”
bibinfo.check duplicate*empty* ’skip*swap* duplicate*empty* ”there’s an issue but no volume in ” cite*∗warning*
’skip*if* swap”(”*swap* ∗ ”)” * if∗*eidempty* format.journal.pages format.journal.eid if

FUNCTION format.chapter.pages   chapter empty′*format.pagestypeempty* bbl.chapter   type ”l”
change.case”*type*”*bibinfo.checkif* chapter tie.or.space.prefix ”chapter” bibinfo.check * * pages empty′*skip*
”, ” * format.pages * if*if*

FUNCTION format.booktitle booktitle ”booktitle” bibinfo.check emphasize FUNCTION empty.misc.check▮
author empty*titleempty* howpublished empty*monthempty* year empty*noteempty* and and and and and ”all
relevant fields are empty in ” cite*∗warning* ’skip*if* FUNCTION format.thesis.type type duplicate*empty*
’pop*swap* pop”*t*”*change.case* ”type” bibinfo.check if*FUNCTIONformat.tr.numbernumber*”*number*”*bibinfo.checktype*
empty*pop* bbl.techrep ’skip*if* ”type” bibinfo.check swap*duplicate* empty*pop* ”t” change.case*tie.or.space.prefix* ∗ ∗*if*
FUNCTION format.article.crossref key duplicate*empty* pop*journalduplicate* empty”*needkeyorjournalfor*”*cite*▮
∗ ” to crossref ” * crossref * warning”*journal*”*bibinfo.checkemphasizeword.inswap* * if*word.inswap* *
” ” * if′”” ∗ *crossref* ∗ ”” ∗ *FUNCTIONformat.crossref.editoreditor*1”*vv* *ll*”*format.name* ”editor” bib-
info.check editor num.names*duplicate* 2 ¿ pop”*editor*”*bibinfo.check*””∗*bbl.etalemphasize*∗2 <′ skip editor 2
”ff vv ll jj” format.name”*others*” = ”*editor*”*bibinfo.check*”” ∗ *bbl.etalemphasize*∗*bbl.andspace.word* ∗ *editor*2”*vv* *ll*”*forn*
”editor” bibinfo.check * if*if* if

FUNCTION format.book.crossref volume duplicate*empty* ”empty volume in ” cite*∗′scrossrefof*” ∗
crossref∗*warning* pop*word.inbbl.volumeswap* tie.or.space.prefix ”volume” bibinfo.check * * bbl.of space.word▮
∗ if*editorempty* editor field.or.null author field.or.null = or key empty*seriesempty* ”need editor, key, or
series for ” cite*∗”tocrossref*”∗*crossref*∗*warning*”” ∗ series emphasize * if*key*if* format.crossref.editor
∗ if′”” ∗ *crossref* ∗ ”” ∗ *FUNCTIONformat.incoll.inproc.crossrefeditorempty* editor field.or.null author
field.or.null = or key empty*format.booktitleduplicate* empty”*neededitor, key, orbooktitlefor*”*cite* ∗ ” to
crossref ” * crossref * warning*word.inswap* ∗ if*word.inkey* ∗ ”” ∗*if* word.in format.crossref.editor ∗ ” ” ∗
if′”” ∗ *crossref* ∗ ”” ∗ *FUNCTIONformat.org.or.pub*′*t* := ””*addressempty* t empty*and*′*skip* add.blank ”(”
∗ address ”address” bibinfo.check * t empty′*skip* address empty′*skip* ”: ” ∗ if*t*∗*if* ”)” ∗ if*FUNCTIONformat.publisher*

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

FUNCTION article   output.bibitem format.authors ”author” output.check format.date ”year” out-

3

put.check date.block crossref missing$journal$ ”journal” $bibinfo.check section field.or.null strip.trailing trim emphasize$ ”jo

skip$section * add.blank if$ format.vol.num.pages output   format.article.crossref output.nonnull format.pages

output if$format.issn output format.note output format.eprint output format.url output fin.entry FUNCTION book output pu

format.editors ”author and editor” output.check   format.authors output.nonnull crossref missing$author and editor$ ”editor

ifif format.date ”year” output.check date.block format.btitle ”title” output.check format.edition output

crossref missing$format.bvolume output format.number.series output format.publisher.address output format.book.crossr

format.isbn output format.note output format.eprint output format.url output fin.entry FUNCTION book-

let   output.bibitem format.authors output format.date output date.block format.title ”title” output.check

howpublished ”howpublished” bibinfo.check output address ”address” bibinfo.check output format.isbn out-

put format.note output format.eprint output format.url output fin.entry

FUNCTION inbook output.bibitem author empty$format.editors$ ”author and editor” $output.check format.authors sou

”author and editor” editor either.or.check ’skipif if$format.date ”year” output.check date.block format.btitle ”title” output.$

format.bvolume output format.publisher.address output format.chapter.pages ”chapter and pages” output.check■

format.number.series output   format.chapter.pages ”chapter and pages” output.check format.book.crossref

output.nonnull if$format.edition output crossref missing$ format.isbn output ’skipif format.note output

format.eprint output format.url output fin.entry

FUNCTION incollection output.bibitem format.authors ”author” output.check format.date ”year” out-

put.check date.block format.title ”title” output.check crossref missing$format.booktitle$ ”booktitle” $output.check format.bvo

format.note output format.eprint output format.url output fin.entry FUNCTION inproceedings output.bibitem■

format.authors ”author” output.check format.date ”year” output.check date.block format.title ”title” out-

put.check crossref missing

format.booktitle ”booktitle” output.check format.bvolume output format.number.series output format.editors.inline■

output publisher empty$format.organization.address output organization$ ”organization” $bibinfo.check output format.pub

format.pages output format.isbn output format.issn output   format.incoll.inproc.crossref output.nonnull for-

mat.pages output if$format.note output format.eprint output format.url output fin.entry FUNCTION conference in proce

organization ”organization” bibinfo.check duplicate$empty$ ’pop$output address$ ”address” $bibinfo.check output if$■

format.authors output.nonnull if$format.date output date.block format.btitle ”title” output.check author empty$

organization empty$address$ ”address” $bibinfo.check output ’skip$ if$organization$ ”organization” $bibinfo.check output address.$

format.edition output format.note output format.eprint output format.url output fin.entry

FUNCTION mastersthesis output.bibitem format.authors ”author” output.check format.date ”year”

output.check date.block format.btitle ”title” output.check bbl.mthesis format.thesis.type output.nonnull

school ”school” bibinfo.warn output address ”address” bibinfo.check output format.note output format.eprint

output format.url output fin.entry

FUNCTION misc output.bibitem format.authors output format.date output format.title output how-

published ”howpublished” bibinfo.check output format.note output format.eprint output format.url output

fin.entry empty.misc.check FUNCTION phdthesis output.bibitem format.authors ”author” output.check

format.date ”year” output.check date.block format.btitle ”title” output.check bbl.phdthesis format.thesis.type■

output.nonnull school ”school” bibinfo.warn output address ”address” bibinfo.check output format.note out-

put format.eprint output format.url output fin.entry

FUNCTION proceedings output.bibitem editor empty$organization$ ”organization” $bibinfo.check output format.edito

format.date ”year” output.check date.block format.btitle ”title” output.check format.bvolume output for-

mat.number.series output editor empty$publisher empty$ ’skip$format.publisher.address output if$ publisher

empty$format.organization.address output organization$ ”organization” $bibinfo.check output format.publisher.addressou

if$format.isbn output format.issn output format.note output format.eprint output format.url output fin.entry$

FUNCTION techreport output.bibitem format.authors ”author” output.check format.date ”year” out-

put.check date.block format.title ”title” output.check format.tr.number output.nonnull institution ”institu-

tion” bibinfo.warn output address ”address” bibinfo.check output format.note output format.eprint output

format.url output fin.entry

FUNCTION unpublished output.bibitem format.authors ”author” output.check format.date output

date.block format.title ”title” output.check format.note ”note” output.check format.eprint output format.url

output fin.entry

FUNCTION default.type misc READ STRINGS longest.label INTEGERS number.label longest.label.width■

FUNCTION initialize.longest.label ”” ’longest.label := 1 ’number.label := 0 ’longest.label.width := FUNC-

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TION longest.label.pass   number.label int.to.str$'label := number.label1 +'$ $number.label := labelwidth$ longest.label.width ¿ label 'longest.label := label width$'longest.label.width :='$ skip if$EXECUTEinitialize.longest.label$ empty$'skip$ preamble$write$ newlineif "" write$newline$ "thebibliography" longest.label * "" * write$newline$ "" write$newline$ " " write$newline$ "" write$newline$ "[2][]2" write$newline$ "write$newline$ "write$newline$ EX-ECUTE begin.bib EXECUTE init.state.consts ITERATE call.type$FUNCTIONend.bibnewline$ "