

The GOST package

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Abstract

GOST is a bundle of BibTeX styles designed to meet State Standards (GOST) on information, librarianship and publishing issued by The Russian Federation and Interstate Committee of former USSR States.

It comprises 16 BibTeX styles to format bibliography in English, Russian and Ukrainian according to GOST 7.0.5-2008 and GOST 7.1-2003. Both 8-bit and Unicode (UTF-8) versions of each BibTeX style, in each case offering a choice of sorted and unsorted. Further, 2 more styles, `gost780` and `gost780s` styles (not conforming to effective standards) are retained for backwards compatibility.

1 Introduction

The package was initially developed by Maksym Polyakov. It was later updated by Igor Kotelnikov to the present status and some code was borrowed from `disser` package developed by Stanislav Kruchinin and unpublished work by Artem Petrenkov.

Nowdays, GOST is a bundle of BibTeX styles designed to meet State Standards (GOST) on information, librarianship and publishing issued by Russian Federation and interstate committee of former USSR States.

The System of Standards includes:

GOST 7.0.5-2008 Bibliographic reference. General requirements and rules of making.

GOST 7.1 -2003 Bibliographic record. Bibliographic description. General requirements and rules.

GOST 7.80 -2000 Bibliographic record. Heading. General requirements and rules.

GOST 7.11 -2004 Bibliographic description and references. Rules for the abbreviation of words and word combinations in foreign European languages.

GOST 7.83 -2001 Electronic editions. Basic types and imprint.

ect.

Currently, GOST contains 16 BibTeX styles to format bibliography in English, Russian and Ukrainian according to GOST 7.0.5-2008 and GOST 7.1-2003. Both 8-bit and Unicode (UTF-8)

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versions of each BibTeX style, in each case offering a choice of sorted and unsorted. Further, 2 styles, `gost780` and `gost780s` styles (which do not conform to effective standards) are retained for backwards compatibility.

All styles in the GOST bundle are derived from single master file `gost.dtx` by applying different set of options as shown in the table below.

Style	utf8	strict	modern	eprint	long	sort	natbib
<code>gost780</code>							
<code>gost780s</code>							+
<code>gost2003</code>			+			+	
<code>gost2003s</code>			+			+	
<code>gost2008</code>				+			
<code>gost2008n</code>				+			+
<code>gost20081</code>				+		+	
<code>gost2008s</code>				+			+
<code>gost2008ns</code>				+		+	
<code>gost2008ls</code>				+		+	
<code>ugost2003</code>		+		+		+	
<code>ugost2003s</code>		+		+			+
<code>ugost2008</code>		+			+		
<code>ugost2008n</code>		+			+		+
<code>ugost20081</code>		+			+		
<code>ugost2008s</code>		+			+		+
<code>ugost2008ns</code>		+			+		+
<code>ugost2008ls</code>		+			+		+

Style	utf8	strict	modern	eprint	long	sort	natbib
-------	------	--------	--------	--------	------	------	--------

`Gost2008` style is recommended for most applications. It corresponds to the currently effective Standard 7.0.5-2008. Librarians should use the style `gost2003` instead of `gost2008` to compile a library catalog to meet the Standard 7.1-2003. Use of other styles is best explained through the meaning of options used to compile those styles from the master source.

Two styles, `gost780` and `gost780s`, compiled without `modern` and `strict` options, are retained for backward compatibility. They do not conform the Standards 7.0.5-2008 and 7.1-2003 cited above.

The `strict` option provides conformance to the Standard 7.1-2003. The styles compiled with that option bear the name `gost2003` with possible suffixes `s`, `l`, `n` as explained below. These styles are intended primarily for the librarians who compose a library catalog.

The `modern` option meets the Standard 7.0.5-2008 which can be thought off as a relaxed version of the Standards 7.1-2003. The styles compiled with that option bear the name `gost2008` with possible suffixes `s`, `l`, `n`. The `strict` option has precedence over `modern` so that a style compiled with both options will resemble mainly the `gost2003` style rather than `gost2008`.

If the number of authors exceeds 4, modern styles cut the list of authors to at most 4 persons as prescribed by the Standards. The option `long` overrides this rule to provide backward compatibility with the package `disser` by Stanislav Kruchinin. Two styles, `gost20081` and `gost20081s`, compiled with the option `long` mimic behavior of the styles `gost705` and `gost705s` from the `disser` package. Major effect of the `long` option is that the list of authors always precedes book or article title no matter how long is it. Modern styles compiled without `long` place long list of authors behind the title. The names of styles compiled with the option `long` has the suffix `l`. Recall that those styles do not conform effective Standards and their use is discouraged.

The `eprint` option enables formatting electronic publications. In particular, it enables `eprint`, `eprinttype`, `eprintclass`, and `doi` fields for a bibliographic entry. The styles generated without the `eprint` option, ignore the these fields. Starting from the version 1.2 of the GOST package, all modern styles are compiled with this option included, and the suffix `e` which designated this option in earlier versions is not appended to the name of style any more.

The `natbib` option provides compatibility with the `natbib` package. The names of styles compiled with the option `natbib` bear the suffix `n`. Currently 4 styles with that option are available for beta testing.

The `sort` option enables sorting bibliographic references by author names and references titles. The names of styles compiled with the option `sort` bear the suffix `s`.

Finally, the `utf8` option produces bibliographic styles in unicode rather than in 8-bit encoding. Names of those styles bear the prefix `u`.

Beyond bibliographic style, GOST bundle contains CS files (codepage and sorting order).

Encoding		CSF	Sorting order
cp866		ruscii.csf	Cyrillic first, Latin
cp1251		cp1251.csf	Cyrillic first, Latin
koi8-u		koi8u.csf	Cyrillic first, Latin
utf8		utf8cyrillic.csf	Cyrillic first, Latin

In addition, BibTeX8 distribution comes with few more CSFs.

Encoding		CSF	Sorting order
cp866		cp866rus.csf	Latin first, Cyrillic

1.1 How to use

1. Select bibliography style by adding appropriate `\bibliographystyle` declaration to your source file `<filename>.tex`, e.g.

```
\bibliographystyle{gost2008}
\bibliography{database}
```

2. Add the field `language="ukrainian"` or `language="russian"` to the bibliographic entries in Ukrainian or Russian languages in your database; English is the default language. German, Italian and French are partially supported.
3. To compile list of references from your database use `bibtex8.exe` rather than `bibtex.exe`. Depending on the codepage of your bibliographic database, indicate one of the CS files listed above as option to `bibtex8.exe`. Run LaTeX, then run `BiTeX8` and LaTeX again:

```
latex <filename>.tex
bibtex8 -B -c <csf_file>.csf <filename>.aux
latex <filename>.tex
```

4. For details on preparing bibliographic database see examples in `gost*.pdf`.
5. `ugost*` styles are primarily intended for use with unicode compilers (`xelatex` and `lualatex`). They should be preferred as well when using 8bit compilers (`latex` and `pdflatex`) if source file is in utf8 encoding.
6. Neither `bitex.exe` nor `bitex8.exe` provides correct sorting order of unicode text. It means that using `ugost2008s` or `ugost2008ns` may produce unexpected result for documents in `utf8` encoding.
7. BiBTeX8 fails to change case of a string if it contains Cyrillic letter in unicode. Therefore `ugost2008*` styles do not change case of titles and other parts of bibliographic record while 8-bit styles do the case change where appropriate.
8. Either `bibtex8` or `BiBTeX8` fail to cut Cyrillic names to initials. Therefore `ugost2008*` styles do not modify name of authors.
9. Package `natbib` is required when choosing styles with suffix `n` int their names.

1.2 Customization

Every GOST style defines few commands to format some parts of a reference. You can redefine these commands prior to the `\bibliography{<bibtex_style>}` command. Initial definitions are listed below.

```
\providecommand*{\url}[1]{{\small #1}}
\providecommand*{\BibUrl}[1]{\url{#1}}
\providecommand{\BibAnnote}[1]{}
\providecommand*{\BibEmph}[1]{#1}
```

By default, `gost` styles separate logical parts of a bibliography record by a period and cyrdash (. "----). It is legitimate to drop that dash by overriding the command `\BibDash` as follows

```
\providecommand*{\BibDash}{}
```

By default, `\BibDash` is equivalent to the shorthand "---

--- defined by the `babel` package with the option `russian`. It prints a so called Cyrillic dash (`\cyrdash`), which is 20 shorter than ordinary LaTeX dash (---), and puts unbreakable space before `\cyrdash` so that dash never appears in the beginning of a line.

1.3 Where to get

1. [CTAN:biblio/bibtex/contrib/gost](#).
2. [CTAN:pkg/gost](#).

1.4 What's new in version 1.2 (2012.02.22)

1. Code refactoring. All styles are now generated from single source file.
2. Support for GOST-7.1-2003. The field `medium` is added to reflect type of material. For most entry types `medium` defaults to `text`.
3. Support for `natbib` package.
4. All modern styles are now compiled with the `eprint` option.

1.5 What's new in version 1.1 (2012.01.21)

1. Support for GOST 7.0.5-2008 and GOST 7.1-2003 is provided.
2. `@online` entry is added to format a reference to electronic resource on Internet.
3. `@MastersThesis` entry is added to format a reference to master's thesis.
4. `@DSciThesis` entry is added to format a reference to doctor of sciences thesis.
5. `Urldate`, `eprint`, `eprintclass`, `eprinttype` fields are added.

1.6 Version history

2012.02.22 Support for `natbib` package.

2012.02.02 Adaptation to GOST 7.0.5, electronic publishing.

2005.08.12 First version uploaded to CTAN.

2003.06.06 First public version.

2 Implementation

We need Russian fonts to produce documentation of the code below. Therefore we switch current language to Russian by issuing the command `\selectlanguage{russian}`.

```
1 {*bst}
2 %%
3 %% This bibstyle attempts to format bibliography according to
4 <!modern>%% GOST 7.80-2000 for bibliographic records.
5 <modern>%% GOST 7.0.5-2008 for bibliographic reference.
6 {*natbib}%%
7 %-----%
8 %% This is an author-year citation style bibliography.
9 %% It requires a special package file to function properly
10 %% such as natbib.sty by Patrick W. Daly.
11 %% The form of the \bibitem entries is
12 %%   \bibitem[Jones et al.(1990)]{key}...
13 %%   \bibitem[Jones et al.(1990)Jones, Baker, and Smith]{key}...
14 %% where the label part (in brackets) consists of the author names,
15 %% as they should appear in the citation, with the year in parentheses following.
16 %% There must be no space before the opening parenthesis!
17 %% A full list of authors may also follow the year.
18 %% In natbib.sty, it is possible to define the type of enclosures that is
19 %% really wanted (brackets or parentheses), but in either case, there must
20 %% be parentheses in the label.
21 %% The \cite command functions as follows:
22 %%   \citet{key}          => Jones et al. (1990)
23 %%   \citet*{key}         => Jones, Baker, and Smith (1990)
24 %%   \citetp{key}         => (Jones et al., 1990)
25 %%   \citetp*{key}        => (Jones, Baker, and Smith, 1990)
26 %%   \citet[chap. 2]{key}  => (Jones et al., 1990, chap. 2)
27 %%   \citet[e.g.][]{key}  => (e.g. Jones et al., 1990)
28 %%   \citet[e.g.][p. 32]{key} => (e.g. Jones et al., p. 32)
29 %%   \citeauthor{key}      => Jones et al.
30 %%   \citeauthor*{key}     => Jones, Baker, and Smith
31 %%   \citeyear{key}        => 1990
32 %-----%
33 </natbib>
34
```

2.1 Fields

Enlist all entry types allowed in a bibliographic database. Most entries are common for many standard bst styles.

```
35 ENTRY
36   { address
37   annotate
38   author
39   booktitle
40   bookauthor
```

```

41 chapter
42 edition
43 editor
44 compiler
45 howpublished
46 institution
47 journal
48 key
49 month
50 note
51 number
52 organization
53 pages
54 publisher
55 school
56 series
57 title
58 medium % new in v.2.
59 type
60 volume
61 year
62 language
63 booklanguage

```

Remaining entries are borrowed from biblatex.

```

64 numpages
65 url
66 urldate
67 isbn
68 doi
69 % archive
70 eprinttype % = archivePrefix
71 eprintclass % = primaryClass
72 eprint
73 }
74 {}
75 <!natbib> { label }
76 <natbib> { label extra.label sort.label short.list }
77

```

Declare internal variables and constants used in to format references.

```

78 INTEGERS { output.state before.all mid.sentence after.sentence after.block
79 after.dblslash after.slash after.column after.semicolumn }
80

```

init.state.consts

```

81 FUNCTION {init.state.consts}
82 { #0 'before.all :=
83 #1 'mid.sentence :=
84 #2 'after.sentence :=
85 #3 'after.block :=
86 #4 'after.dblslash :=

```

```

87 '#5 'after.slash :=
88 '#6 'after.column :=
89 '#7 'after.semicolumn :=
90 }
91
92 STRINGS { s t }
93
94 STRINGS { curlanguage }
95

```

2.2 Formatting functions

change.language	Declare function to switch language.
	<pre> 96 FUNCTION {change.language} 97 { booklanguage empty\$ 98 { "" } 99 { booklanguage 'curlanguage := 100 "\selectlanguage{ifdefined{" 101 curlanguage * 102 "}" * 103 } 104 if\$ 105 } 106 </pre>
outputnonnull	Declare functions to output various parts of bibliographic record.
	<pre> 107 FUNCTION {outputnonnull} 108 { 109 swap\$ 110 output.state mid.sentence = 111 { ", " * write\$ } 112 { output.state after.block = 113 { add.period\$ write\$ 114 {!modern} " " quote\$ "---" * * write\$ 115 {modern} "\BibDash" write\$ 116 newline\$ 117 "\newblock" write\$ 118 } 119 { output.state before.all = 120 'write\$ 121 { output.state after.dblslash = 122 { "~~/" * change.language * " " * write\$ } 123 { output.state after.slash = 124 { "~~/" * write\$ } 125 { output.state after.column = 126 {!(strict modern)} { ":" * write\$ } 127 {strict modern} { "~:" * write\$ } 128 { output.state after.semicolumn = 129 {!(strict modern)} { ";" * write\$ } 130 {strict modern} { "~;" * write\$ } </pre>

```

131             { add.period$ " " * write$ }
132             if$
133             }
134         if$
135         }
136     if$
137     }
138     if$
139     }
140     if$
141     }
142     if$
143     mid.sentence 'output.state :=
144   }
145   if$
146 }
147

output
output.check 148 FUNCTION {output}
149 { duplicate$ empty$
150   'pop$
151   'outputnonnull
152   if$
153 }
154
155 FUNCTION {output.check}
156 { 't :=
157   duplicate$ empty$
158   { pop$ "empty" t * " in " * cite$ * warning$ }
159   'outputnonnull
160   if$
161 }
162

fin.entry      fin.entry finalizes current entry. It writes dot, if no dot is found in stack, and starts new line.
163 FUNCTION {fin.entry}
164 { add.period$
165   write$
166   newline$
167 }
168

new.block      Declare family of functions to put punctuation marks depending of current status of output
stack. The just check output state and revert it another state if required. Checking output state
prevents occasional doubling of punctuation marks.
169 FUNCTION {new.block}
170 { output.state before.all =
171   'skip$
172   { after.block 'output.state := }
173   if$
```

```

174 }
175
new dblslash
176 FUNCTION {new dblslash}
177 { output.state before.all =
178   'skip$
179   { after.dblslash 'output.state := }
180   if$
181 }
182
new slash
183 FUNCTION {new slash}
184 { output.state before.all =
185   'skip$
186   { after.slash 'output.state := }
187   if$
188 }
189
new column
190 FUNCTION {new column}
191 { output.state before.all =
192   'skip$
193   { after.column 'output.state := }
194   if$
195 }
196
new semicolon
197 FUNCTION {new semicolon}
198 { output.state before.all =
199   'skip$
200   { after.semicolon 'output.state := }
201   if$
202 }
203
new sentence
204 FUNCTION {new sentence}
205 { output.state after.block =
206   'skip$
207   { output.state before.all =
208     'skip$
209     { after.sentence 'output.state := }
210     if$
211   }
212   if$
213 }
214

```

```

add.blank
215 FUNCTION {add.blank}
216 { " " * before.all 'output.state :=
217 }
218

not      Declare few logical functions.
219 FUNCTION {not}
220 { { #0 }
221   { #1 }
222   if$
223 }
224

and
225 FUNCTION {and}
226 { 'skip$ 
227   { pop$ #0 }
228   if$
229 }
230

or
231 FUNCTION {or}
232 { { pop$ #1 }
233   'skip$ 
234   if$
235 }
236

chop.word The function chop.word in substr len str chop.word removes given substring substr of length
len from the beginning of the string str.
237 {*sort | natbib}
238 INTEGERS { len }
239
240 FUNCTION {chop.word}
241 { 's :=
242   'len :=
243   s #1 len substring$ =
244   { s len #1 + global.max$ substring$ }
245   's
246   if$
247 }
248 /sort | natbib
249

non.stop
250 FUNCTION {non.stop}
251 { duplicate$ 
252   "}" * add.period$ 
253   #-1 #1 substring$ "." =
254 }

```

```

255
new.block.checka
256 FUNCTION {new.block.checka}
257 { empty$
258   'skip$
259   'new.block
260   if$
261 }
262

new.block.checkb
263 FUNCTION {new.block.checkb}
264 { empty$
265   swap$ empty$
266   and
267   'skip$
268   'new.block
269   if$
270 }
271

w.sentence.checka
272 FUNCTION {new.sentence.checka}
273 { empty$
274   'skip$
275   'new.sentence
276   if$
277 }
278

w.sentence.checkb
279 FUNCTION {new.sentence.checkb}
280 { empty$
281   swap$ empty$
282   and
283   'skip$
284   'new.sentence
285   if$
286 }
287

w.dblslash.checka  For online entry.
288 FUNCTION {new.dblslash.checka}
289 { empty$
290   'skip$
291   'new.dblslash
292   if$
293 }
294

field.or.null
295 FUNCTION {field.or.null}

```

```

296 { duplicate$ empty$
297     { pop$ "" }
298     'skip$'
299     if$'
300 }
301
emphasize   Declare function to emphasize last string in stack.
302 FUNCTION {emphasize}
303 { duplicate$ empty$
304     { pop$ "" }
305     { "\BibEmph{" swap$ * "}" * }
306     if$'
307 }
308
e.square.brackets   New in v.1.2. Declare function to enclose last word in square brackets. It do so only for the
                     string option.
309 {*!strict}
310 FUNCTION {enclose.square.brackets} { }
311 <!/strict>
312 {*strict}
313 FUNCTION {enclose.square.brackets}
314 { duplicate$ empty$
315     { pop$ "" }
316     { "[" swap$ * "]" * }
317     if$'
318 }
319 </strict>
320
321
322 % \DescribeFunction{bracify}
323 % \DescribeFunction{bracketise}
324 % \DescribeFunction{parenthesify}
325 % New in v.1.2. An idea borrowed from apsrev4-1 bst.
326 % Declare function to enclose last word in braces, square brackets and
327 % parenthesis.
328 % \begin{macrocode}
329 FUNCTION {bracify}
330 { duplicate$ empty$
331     { pop$ "{}" }
332     { "{" swap$ * "}" * }
333     if$'
334 }
335 FUNCTION {bracketise}
336 { duplicate$ empty$
337     { pop$ "[]" }
338     { "[" swap$ * "]" * }
339     if$'
340 }
341 FUNCTION {parenthesify}

```

```

342 { duplicate$ empty$
343     { pop$ "(" }
344     { "(" swap$ * ")" * }
345     if$
346 }
347
348
space.word      space.word inserts space before last string in stack.

349 FUNCTION {space.word}
350 { " " swap$ * " " * }
351

```

2.3 Standard abbreviations

bb1.edby Declare language-sensitive abbreviations.

```

352 FUNCTION {bb1.edby}    % { "\bbledby{}" }
353 { curlanguage "english" =
354     {"Ed.\ by"}
355     { curlanguage "ukrainian" =
356 <!utf8>      {"{\cyr\CYRP\cyrii\cyrd\ \cyrr\cyre\cyrd.}"}
357 <utf8>       {"Під ред."}
358     { curlanguage "russian" =
359 <!utf8>      {"{\cyr\CYRP\cyro\cyrd\ \cyrr\cyre\cyrd.}"}
360 <utf8>       {"Под ред."}
361     { curlanguage "german" =
362         {"ed."}
363         {"language is not defined: " language "edby" * * warning$ "Ed.\ by"}
364     if$}
365     if$}
366     if$}
367 if$}
368

```

bb1.cmplr

```

369 FUNCTION {bb1.cmplr}
370 { curlanguage "english" =
371     { "Compiler" }
372     { curlanguage "german" =
373         {"Hrsg."}
374     { curlanguage "ukrainian" =
375 <!utf8>      {"{\cyr\CYRU\cyrk\cyrl.}"}
376 <utf8>       {"{Укп.}"}
377     { curlanguage "russian" =
378 <!utf8>      {"{\cyr\CYRS\cyro\cyrs\cyrt.}"}
379 <utf8>       {"{Cocrt.}"}
380         {"language is not defined: " language "cmplr" * * warning$ "Compiler"}
381     if$}
382     if$}
383     if$}
384 if$}

```

385

bbl.edition

```
386 FUNCTION {bbl.edition} % { "\bbledition{}" }
387 { curlanguage "english" =
388   {"edition"}
389   { curlanguage "ukrainian" =
390   \utf8 {`\cyr\cyrv\cyri\cyrd.}`}
391   \utf8 {`\cyr.`}
392   { curlanguage "russian" =
393   \utf8 {`\cyr\cyri\cyrz\cyrd.`}
394   \utf8 {`\cyr.`}
395   { curlanguage "german" =
396     {"{aus.}" } %%% { "Aufl." } ??
397     { curlanguage "italian" =
398       {"edizione"}
399       { curlanguage "french" =
400         {"\'{e}dition"}
401         {"language is not defined: " language "edition" * * warning$ "edition"}
402         if$}
403         if$}
404         if$}
405         if$}
406         if$}
407 if$}
408
```

bbl.vvolume

```
409 FUNCTION {bbl.vvolume} % { "\bblVolume{}" }
410 { curlanguage "english" = curlanguage "french" = or curlanguage "italian" = or
411   {"Volume"}
412   { curlanguage "ukrainian" = curlanguage "russian" = or
413   \utf8 {`CYRT\cyro\cyrm`}
414   \utf8 { "Tom" }
415   { curlanguage "german" =
416     {"{Band}" } %%% { "Volumen" }
417     {"language is not defined: " language "vvolume" * * warning$ "Volume"}
418     if$}
419     if$}
420 if$}
421
```

bbl.vvol

```
422 FUNCTION {bbl.vvol} % { "\bblVol{}" }
423 { curlanguage "english" = curlanguage "french" = or curlanguage "italian" = or
424   {"Vol."}
425   { curlanguage "ukrainian" = curlanguage "russian" = or
426   \utf8 {`CYRT. `}
427   \utf8 { "T. "}
428   { curlanguage "german" =
429     {"{Bd.}" } %%% { "Vol." }
430     {"language is not defined: " language "vvol" * * warning$ "Vol."}
```

```

431      if$}
432      if$}
433 if$}
434
bbl.iissue
435 FUNCTION {bbl.iissue} % { "\bblIssue{}" }
436 { curlanguage "english" =
437   {"Issue"}
438   { curlanguage "ukrainian" =
439 ⟨!utf8⟩   {"\CYRV\cyri\cyrp\cyru\cyrs\cyrk"}
440 ⟨utf8⟩   {"Випуск"}
441   { curlanguage "russian" =
442 ⟨!utf8⟩   {"\CYRV\cyrery\cyrp\cyru\cyrs\cyrk"}
443 ⟨utf8⟩   {"Выпуск"}
444   { curlanguage "german" =
445     {"{Heft}"} %%% { "Ausgabe" }
446     {"language is not defined: " language "iissue" * * warning$ "Issue"}
447   if$}
448   if$}
449   if$}
450 if$}
451
bbl.iiss
452 FUNCTION {bbl.iiss} % { "\bblIss{}" }
453 { curlanguage "english" =
454   {"Iss."}
455   { curlanguage "ukrainian" =
456 ⟨!utf8⟩   {"\CYRV\cyri\cyrp."}
457 ⟨utf8⟩   {"Вип."}
458   { curlanguage "russian" =
459 ⟨!utf8⟩   {"\CYRV\cyrery\cyrp."}
460 ⟨utf8⟩   {"Вып."}
461   { curlanguage "german" =
462     {"{H.}"}
463     {"language is not defined: " language "iiss" * * warning$ "Iss."}
464   if$}
465   if$}
466   if$}
467 if$}
468
bbl.of
469 FUNCTION {bbl.of}      % { "\bblof{}" }
470 { curlanguage "english" =
471   {"of"}
472   { curlanguage "german" =
473     {"von" }
474   { curlanguage "ukrainian" =
475 ⟨!utf8⟩   {"{\cyr\cyrii\cyrz}" }
476 ⟨utf8⟩   {"{із}" }

```

```

477      { curlanguage "russian" =
478 <!utf8>          { "{\cyr\cyri\cyrz}" }
479 <utf8>          { "{\u0433}" }
480          {"language is not defined: " language "of" * * warning$ "of"}
481          if$}
482          if$}
483          iff$}
484 if$}
485

bb1.etal
486 FUNCTION {bb1.etal}      % { "\bblof{}" }
487 { curlanguage "english" =
488   {"et~al."}
489   { curlanguage "german" =
490     {"u.~a."}
491   { curlanguage "ukrainian" =
492 <!utf8>           {"{\cyr\cyrt\cyra`\cyrii\cyrn.}"}
493 <utf8>           {"{ta`in.}"}
494   { curlanguage "russian" =
495 <!utf8>           {"{\cyr\cyri`\cyrd\cyrr.}"}
496 <utf8>           {"и́дп."}
497           {"language is not defined: " language "et~al" * * warning$ "et~al."}
498           if$}
499           if$}
500           iff$}
501 if$}
502

bb1.and
503 <*natbib>
504 FUNCTION {bb1.and}      % { "\bbland{}" }
505 { curlanguage "english" =
506   {"and"}
507   { curlanguage "german" =
508     {"und" }
509   { curlanguage "ukrainian" =
510 <!utf8>           {"{\cyrii}"}
511 <utf8>           {"i"}
512   { curlanguage "russian" =
513 <!utf8>           {"{\cyri}"}
514 <utf8>           {"и́"}
515           {"language is not defined: " language "and" * * warning$ "and"}
516           if$}
517           if$}
518           iff$}
519 if$}
520 </natbib>
521

bb1.nnumber
522 FUNCTION {bb1.nnumber} % { "\bb1Number{}" }

```

```

523 { curlanguage "english" =
524   {"Number"}
525   { curlanguage "ukrainian" = curlanguage "russian" = or
526   <!utf8>      {"\CYRN\cyro\cyrm\cyre\cyrr"}
527   <utf8>      {"{Homep}"}
528   { curlanguage "german" =
529     {"{Heft}"} %%% {"Anzahl" }
530     {"language is not defined: " language "nnumber" * * warning$ "Number"}
531     if$}
532   if$}
533 if$}
534

bbl.number
535 FUNCTION {bbl.number} % {\bblnumber{}}
536 { curlanguage "english" =
537   {"number"}
538   { curlanguage "ukrainian" = curlanguage "russian" = or
539   <!utf8>      {"\cyr\cyrn\cyro\cyrm\cyre\cyrr"}
540   <utf8>      {"{Homep}"}
541   { curlanguage "german" =
542     {"{Heft}"} %%% {"anzahl" }???
543     {"language is not defined: " language "number" * * warning$ "number"}
544     if$}
545   if$}
546 if$}
547

bbl.nr
548 FUNCTION {bbl.nr} % {\bblno{}}
549 { curlanguage "english" =
550   {"no."}
551   { curlanguage "italian" =
552     {"no" }
553     { curlanguage "ukrainian" = curlanguage "russian" = or
554   <!utf8>      {"\cyr{textnumero}" }
555   <utf8>      {"{N}"}
556     { curlanguage "german" =
557       {"{H.}"} %%% {"an." }
558       {"language is not defined: " language "nr" * * warning$ "no."}
559       if$}
560     if$}
561   if$}
562 if$}
563

bbl.nnr
564 FUNCTION {bbl.nnr} % {\bblno{}}
565 { curlanguage "english" =
566   {"No."}
567   { curlanguage "ukrainian" = curlanguage "russian" = or
568   <!utf8>      {"\cyr{textnumero}" }

```

```

569 <utf8>      { "\{P\}" }
570      { curlanguage "german" =
571          {"\{H.\}" } %%% { "an." }
572          {"language is not defined: " language  "nnr" * * warning$ "No."}
573      if$}
574      iff$}
575 if$}
576
bbl.in
577 FUNCTION {bbl.in}    %   { "\bblin{}" }
578 { curlanguage "english" = curlanguage "german" = or
579   {"in"}
580   { curlanguage "ukrainian" = curlanguage "russian" = or
581 <!utf8>      { "\{cyr\cyrv\}" }
582 <utf8>      { "\{B\}" }
583      {"language is not defined: " language  "in" * * warning$ "in"}
584      iff$}
585 if$}
586
bbl.iin
587 FUNCTION {bbl.iin}  %   { "\bblIn{}" }
588 { curlanguage "english" = curlanguage "german" = or
589   {"In"}
590   { curlanguage "ukrainian" = curlanguage "russian" = or
591 <!utf8>      { "\CYRV" }
592 <utf8>      { "\{B\}" }
593      {"language is not defined: " language  "iin" * * warning$ "In"}
594      iff$}
595 if$}
596
bbl.pages
597 FUNCTION {bbl.pages}  % { "\bbalpp. " }
598 { curlanguage "english" = curlanguage "french" = or curlanguage "italian" = or
599   {"p."} %%% {"pp."}
600   { curlanguage "ukrainian" = curlanguage "russian" = or
601 <!utf8>      {"\{cyr\cyrs.\}"}
602 <utf8>      {"\{c.\}"}
603      { curlanguage "german" =
604          {"S."} %%% { "s." }
605          {"language is not defined: " language  "pages" * * warning$ "p."}
606      iff$}
607      iff$}
608 if$}
609
bbl.page
610 FUNCTION {bbl.page}  %   { "\bbalp. "
611 { curlanguage "english" = curlanguage "french" = or curlanguage "italian" = or
612   {"p."}

```

```

613 { curlanguage "ukrainian" = curlanguage "russian" = or
614 <!utf8> {"{\cyr\cyrs.}"}
615 <utf8> {"{c.}"}
616 { curlanguage "german" =
617 {"S."} %%% { "s." }
618 {"language is not defined: " language "page" * * warning$ "p."}
619 if$}
620 if$}
621 if$}
622

bbl.ppages
623 FUNCTION {bbl.ppages}{ "% {\\"bblPp." }
624 { curlanguage "english" = curlanguage "french" = or curlanguage "italian" = or
625 {"P."} %%% { "Pp." }
626 { curlanguage "ukrainian" = curlanguage "russian" = or
627 <!utf8> {"{\cyr\CYRS.}"}
628 <utf8> {"{C.}"}
629 { curlanguage "german" =
630 {"S."}
631 {"language is not defined: " language "ppages" * * warning$ "P."}
632 if$}
633 if$}
634 if$}
635

bbl.ppage
636 FUNCTION {bbl.ppage}{ "% {\\"bblP." }
637 { curlanguage "english" = curlanguage "french" = or curlanguage "italian" = or
638 {"P."}
639 { curlanguage "ukrainian" = curlanguage "russian" = or
640 <!utf8> {"{\cyr\CYRS.}"}
641 <utf8> {"{C.}"}
642 { curlanguage "german" =
643 {"S."}
644 {"language is not defined: " language "ppage" * * warning$ "P."}
645 if$}
646 if$}
647 if$}
648

bbl.urldate Next function was added in version 2012.01.15.
649 FUNCTION {bbl.urldate}
650 { curlanguage "english" =
651 {"online; accessed"}
652 { curlanguage "ukrainian" =
653 <!utf8> {"{\cyrd\cyra\cyrt\cyra\ \cyrz\cyrv\cyre\cyrr\cyrn\cyre\cyrn\cyrn\cyrya}" }
654 <utf8> {"{дата звернення}" }
655 { curlanguage "russian" =
656 <!utf8> {"{\cyrd\cyra\cyrt\cyra\ \cyro\cyrb\cyrr\cyra\cyrshch\cyre\cyrn\cyri\cyrya}" }
657 <utf8> {"{дата обращения}" }
658 { curlanguage "german" =

```

```

659         { "{online; abgerufen}" }
660         { "language is not defined: " language "urldate" * * warning$ "online; accessed" }
661     if$}
662     if$}
663     if$}
664 if$}
665

bbl.techreport
666 FUNCTION {bbl.techreport} % rename to bbl.techreport
667 { curlanguage "english" =
668   { "Rep." }
669   { curlanguage "german" =
670     { "Bericht" }
671     { curlanguage "russian" =
672 <!utf8>       { "{\cyr\CYR0\cyrt\cyrch\cyre\cyrt}" }
673 <utf8>        { "{\text{Отчет}}" }
674     { "language is not defined: " language "techrep" * * warning$ "Rep." }
675   if$}
676   if$}
677 if$}
678

bbl.mthesis
679 FUNCTION {bbl.mthesis}
680 { curlanguage "english" =
681   { "Master's thesis" }
682   { curlanguage "german" =
683     { "Diss.-Mag." }
684     { curlanguage "russian" =
685 <!utf8>       { "{\cyr\CYRK\cyrv\cyra\cyl\cyri\cyrf\cyri\cyrk\cyra\cyrc\cyri"
686 <!utf8>         "\cyro\cyrn\cyra\cyrya\ \cyrr\cyra\cyrb\cyro\cyrt\cyra\ " *
687 <!utf8>         "\cym\cyra\cyrg\cyri\cyrs\cyrt\cyrr\cyra}" * }
688 <utf8>        { "{Квалификационная работа магистра}" }
689     { "language is not defined: " language "mthesis" * * warning$ "Master's thesis" }
690   if$}
691   if$}
692 if$}
693

bbl.phdthesis
694 FUNCTION {bbl.phdthesis}
695 { curlanguage "english" =
696   { "Ph.\,D. thesis" }
697   { curlanguage "german" =
698     { "Diss.-Ph.\,D." }
699     { curlanguage "russian" =
700 <!utf8>       { "{\cyr\CYRD\cyri\cyrs\ldots\ \cyrk\cyra\cyrn\cyrd\cyri"
701 <!utf8>         "\cyrd\cyra\cyrt\cyra\ \cyrn\cyra\cyru\cyrk}" * }
702 <utf8>        { "{Дисс.\ldots\ кандидата наук}" }
703     { curlanguage "french" =
704       { "Th\`ese de doctorat" } }
```

```

705         { "language is not defined: " language "phdthesis" * * warning$ "Ph.\,D. thesis" }
706         if$}
707     if$}
708   if$}
709 if$}
710

bbl.dscithesis

711 FUNCTION {bbl.dscithesis}
712 { curlanguage "english" =
713   { "Dr.\,Sci. dissertation" }
714   { curlanguage "german" =
715     { "Diss.-Dr." }
716   { curlanguage "russian" =
717   { \cyr\CYRD\cyri\crys\crys\ldots\ \cyrd\cyro\cyrk\cyrt\cyro"
718   { \cyrr\cyra\ \cyrn\cyra\cyru\cyrk" * }
719   { "\u043f\u043e\u043b\u043d\u0430\u043b\u0430 \u043d\u043e\u0431\u043e\u0437\u0430 \u0437\u0430\u0431\u043e\u0437\u0430" }
720   { "language is not defined: " language "dscithesis" * * warning$ "Dr.\,Sci. dissertation" }
721   if$}
722   iff$}
723 if$}
724

bbl.nnoaddress

725 FUNCTION {bbl.nnoaddress}
726 { curlanguage "english" =
727   { "S.\ l." }
728   { curlanguage "russian" =
729   { \cyr\CYRB.\ \cyrm. }
730   { \u041f\u0435\u0440\u0435\u0434\u043d\u0430\u043b\u0430 \u043d\u043e\u0431\u043e\u0437\u0430 \u0437\u0430\u0431\u043e\u0437\u0430" }
731   { "language is not defined: " language "nnoaddress" * * warning$ "S.\ l." }
732   iff$}
733 if$}
734

bbl.nopublisher

735 FUNCTION {bbl.nopublisher}
736 { curlanguage "english" =
737   { "s.\ n." }
738   { curlanguage "russian" =
739   { \cyr\cyrb.\ \cyri. }
740   { \u041f\u0435\u0440\u0435\u0434\u043d\u0430\u043b\u0430 \u043d\u043e\u0431\u043e\u0437\u0430 \u0437\u0430\u0431\u043e\u0437\u0430" }
741   { "language is not defined: " language "nnopublisher" * * warning$ "s.\ n." }
742   iff$}
743 if$}
744

bbl.nnopublisher

745 FUNCTION {bbl.nnopublisher}
746 { curlanguage "english" =
747   { "S.\ n." }
748   { curlanguage "russian" =

```



```

bbl.executor
 794 FUNCTION {bbl.executor}
 795 { curlanguage "english" =
 796   { "Executor" }
 797   { curlanguage "russian" =
 798   {!utf8}      { "{\cyr\cyri\cyrs\cyrp\cyro\cyrl\cyrn.}" }
 799   {utf8}       { "{исполн.}" }
 800   { curlanguage "ukrainian" =
 801   {!utf8}      { "{\cyr\cyrv\cyri\cyrk\cyro\cyrn\cyra\cyrv\cyre\cyrc\cyrsftsn}" }
 802   {utf8}       { "{виконавець}" }
 803   { "language is not defined: " language "medium" * * warning$ "Executor" }
 804   if$}
 805   if$}
 806 if$}
 807

bbl.medium
 808 FUNCTION {bbl.medium}
 809 { type$ "online" =
 810   { bbl.medium.elres }
 811   { bbl.medium.text }
 812 if$}
 813

```

2.4 Formatting functions

Declare functions to format separate elements of bibliographic reference.

```

814 INTEGERS { nameptr namesleft numnames }
815
816

```

format.names Function `format.names` has 2 version. First is for bibliographic records rather then for bibliographic references. It is used for `.bst` styles compiled without the `modern` option. It format every name as ‘LastName, F. S.’. Historically, this version was used first for earlier styles included into GOST bundle.

Important note

Neither `bibtex` nor `bibtex8` can handle unicoded text without troubles. In particular, they fail to reduce a Cyrillic name to initials. Therefore we avoid using `f.` primitive when option `utf8` is in effect.

```

817 <!*modern>
818 FUNCTION {format.names}
819 {
820   {!utf8} #1 "{vv~}{ll}{~jj}{,~f.}" format.name$
821   {utf8} #1 "{vv~}{ll}{~jj}{,~ff}" format.name$
822 }
823 </!*modern>

```

Second version drops comma from output so that every name is formatted as ‘LastName F. S.’. It also substitutes 4th and following names by localized term ‘et al’.

```

824 <!*modern>

```

```

825 FUNCTION {format.names}
826 {
827   's :=
828   #1 'nameptr :=
829   s num.names$ 'numnames :=
830   numnames 'namesleft :=
831   { namesleft #0 > }
832   { s nameptr
833   <!utf8>     "{vv~}{ll}{~jj}{~f.}" format.name$ 't :=
834   <utf8>      "{vv~}{ll}{~jj}{~ff}" format.name$ 't :=
835   nameptr #1 >
836   { nameptr #4 =
837     numnames #4 > and
838     { "others" 't :=
839       #1 'namesleft :=
840       'skip$
841       if$
842       namesleft #1 >
843       { ", " * t * }
844       { t "others" =
845         t "~others" =
846         or
847   <!strict>           { " " * bbl.etal * }
848   <strict>          { " " * bbl.etal enclose.square.brackets *}
849   { ", " * t * }
850   if$
851   }
852   if$
853   }
854   't
855   if$
856   nameptr #1 + 'nameptr :=
857   namesleft #1 - 'namesleft :=
858 }
859 while$
860 }
861 </modern>
862

```

`format.lab.names` Declare function to go to optional argument of `\bibitem` in the styles generated with the option `natbib`.

```

863 (*natbib)
864 FUNCTION {format.lab.names}
865 { 's :=
866   language empty$
867   { "english" 'curlanguage :=
868   { language 'curlanguage :=
869   if$
870   s #1 "{vv~}{ll}" format.name$
871   s num.names$ duplicate$
872   #2 >

```

```

873  %{ pop$ " et~al." * }
874  { pop$ " " bbl.etal * * }
875  { #2 <
876      'skip$
877      { s #2 "{ff }{vv }{ll}{ jj}" format.name$ "others" =
878          %{ " et~al." * }
879          { " " bbl.etal * * }
880          %{ " and " * s #2 "{vv~}{ll}" format.name$ * }
881          { " " bbl.and " " * * * s #2 "{vv~}{ll}" format.name$ * }
882          if$
883      }
884      if$
885  }
886  if$
887 }
888 </natbib>
889

```

`format.names.rev` Declare function to format names for authors/bookauthors list after title and etc. Note that `format.names.rev` cuts list of names to at most 4 persons. We do not cut names to initials in this list.

```

890 FUNCTION {format.names.rev}
891 {
892     's :=
893     '#1 'nameptr :=
894     s num.names$ 'numnames :=
895     numnames 'namesleft :=
896     { namesleft #0 > }
897     { s nameptr
898     <!utf8>      "%{f.}{~vv}{~ll}{, jj}" format.name$ 't :=
899     <!utf8>      "{ff}{~vv}{~ll}{, jj}" format.name$ 't :=
900     <utf8>      "{ff}{~vv}{~ll}{, jj}" format.name$ 't :=
901     nameptr #1 >
902     { nameptr #4 =
903         numnames #4 > and
904         { "others" 't :=
905             '#1 'namesleft := }
906         'skip$
907         if$
908         namesleft #1 >
909         { ", " * t * }
910         { t "others" =
911             t "~others" =
912             or
913             <!strict>           { " " * bbl.etal * }
914             <strict>           { " " * bbl.etal enclose.square.brackets * }
915             { ", " * t * }
916             if$
917             }
918             if$
919         }

```

```

920      't
921      if$ 
922      nameptr #1 + 'nameptr := 
923      namesleft #1 - 'namesleft := 
924    }
925  while$ 
926 }
927

format.key  Function to substitute empty field (usually, author name) with the key field.
928 {*natbib}
929 FUNCTION {format.key}
930 { empty$ 
931   { key field.or.null }
932   { "" }
933   if$ 
934 }
935{/natbib}
936

format.authors
937 FUNCTION {format.authors}
938 { author empty$ 
939   { "" }
940   { author format.names emphasize}
941   if$ 
942 }
943

author.key.label
944 {*natbib}
945 FUNCTION {author.key.label}
946 { author empty$ 
947   { key empty$ 
948     { cite$ #1 #3 substring$ }
949     'key
950   if$ 
951 }
952   { author format.lab.names }
953   if$ 
954 }
955

956 FUNCTION {author.editor.key.label}
957 { author empty$ 
958   { editor empty$ 
959     { key empty$ 
960       { cite$ #1 #3 substring$ }
961       '%key %% causes lost of year
962       { "{}" key * } %% Bug in bibtex8 ??
963     if$ 
964   }
965   { editor format.lab.names }

```

```

966      if$
967  }
968  { author format.lab.names }
969  if$
970 }
971
972 FUNCTION {author.key.organization.label}
973 { author empty$ 
974   { key empty$ 
975     { organization empty$ 
976       { cite$ #1 #3 substring$ }
977       { "The " #4 organization chop.word #3 text.prefix$ }
978     if$
979   }
980   'key
981   if$
982 }
983 { author format.lab.names }
984 if$
985 }
986
987 FUNCTION {editor.key.organization.label}
988 { editor empty$ 
989   { key empty$ 
990     { organization empty$ 
991       { cite$ #1 #3 substring$ }
992       { "The " #4 organization chop.word #3 text.prefix$ }
993     if$
994   }
995   'key
996   if$
997 }
998 { editor format.lab.names }
999 if$
1000 }
1001
1002 FUNCTION {calc.short.authors}
1003 { type$ "book" =
1004   type$ "inbook" =
1005   or
1006   'author.editor.key.label
1007   { type$ "proceedings" =
1008     'editor.key.organization.label
1009     { type$ "manual" =
1010       'author.key.organization.label
1011       'author.key.label
1012     if$
1013   }
1014   if$
1015 }

```

```

1016  if$
1017  'short.list :=
1018 }
1019
1020 FUNCTION {calc.label}
1021 { calc.short.authors
1022   short.list
1023   "("
1024   *
1025   year duplicate$ empty$
1026   short.list key field.or.null = or
1027     { pop$ "" }
1028     'skip$
1029   if$
1030   *
1031   'label :=
1032 }
1033
1034 </natbib>
1035

format.bookauthors This function is used only once, in bookauthor.before, and the latter is used only in inbook entry.

1036 FUNCTION {format.bookauthors}
1037 { bookauthor empty$
1038   { "" }
1039   { bookauthor format.names}
1040   if$
1041 }
1042

mat.authors.after

1043 FUNCTION {format.authors.after}
1044 { author empty$
1045   { "" }
1046   { author format.names.rev}
1047   if$
1048 }
1049

bookauthors.after

1050 FUNCTION {format.bookauthors.after}
1051 { bookauthor empty$
1052   { "" }
1053   { bookauthor format.names.rev}% always cuts to 4 persons
1054   if$
1055 }
1056

mat.editors.after

1057 FUNCTION {format.editors.after}
1058 { editor empty$
```

```

1059     { "" }
1060     { bbl.edby "\ " * editor format.names.rev * }
1061     if$
1062 }
1063

format.chief.after
1064 FUNCTION {format.chief.after}
1065 { editor empty$ 
1066     { "" }
1067     { bbl.chief "\ " * editor format.names.rev * }
1068     if$
1069 }
1070

at.executor.after
1071 FUNCTION {format.executor.after}
1072 { author empty$ 
1073     { "" }
1074     { bbl.executor ": " * author format.names.rev * }
1075     if$
1076 }
1077

at.compiler.after
1078 FUNCTION {format.compiler.after}
1079 { compiler empty$ 
1080     { "" }
1081     { bbl.cmplr "\ " * compiler format.names.rev * }
1082     if$
1083 }
1084

format.title Important note Neither bibtex nor bibtex8 can handle unicoded text without troubles. In particular, bibtex8 fails to change case of a string if it contains Cyrillic letter. Therefore we avoid using change.case$ when option utf8 is in effect.
1085 FUNCTION {format.title}
1086 { title empty$ 
1087     { "" }
1088 <!utf8>   { title "t" change.case$ }
1089 <utf8>   { title }
1090     if$
1091 }
1092

format.date
1093 FUNCTION {format.date}
1094 { year empty$ 
1095     { month empty$ 
1096         { "" }
1097         { "there's a month but no year in " cite$ * warning$ 
1098             month

```

```

1099      }
1100      if$ 
1101    }
1102    { month empty$ 
1103      'year
1104 <!modern>      { year ". " quote$ "--- " month * * * * }
1105 <modern>        { year ". \BibDash " month * * }
1106      if$ 
1107    }
1108    if$ 
1109 <natbib>  extra.label * % new in v.1.2
1110 }
1111

address.publisher
address.publisher.dat@12 {*!strict}
1113 FUNCTION {output.address.publisher}
1114 {
1115   address empty$ 
1116   'skip$ 
1117   { address output
1118     publisher empty$ 
1119     'skip$ 
1120     { new.column }
1121     if$ 
1122   }
1123   if$ 
1124   publisher output
1125 }
1126 </!strict>
1127 {*strict}
1128 %FUNCTION {output.address.publisher}
1129 %{
1130 %  address empty$ 
1131 %  {
1132 %    bbl.nnoaddress
1133 %    publisher empty$ 
1134 %    { "~: " * bbl.nopublisher *  }
1135 %    { }
1136 %    if$ 
1137 %    enclose.square.brackets
1138 %
1139 %
1140 %  address output
1141 %  new.column
1142 %  publisher empty$ 
1143 %  { bbl.nopublisher enclose.square.brackets }
1144 %  { publisher }
1145 %  if$ 
1146 %
1147 %  if$ 

```

```

1148 % output
1149 %}
1150 FUNCTION {output.address.publisher}
1151 {
1152   address empty$ 
1153   {
1154     bbl.nnoaddress
1155     publisher empty$ 
1156     { "~: " * bbl.nopublisher * enclose.square.brackets }
1157     { enclose.square.brackets "~: " * publisher * }
1158     if$
1159   }
1160   {
1161     address output
1162     new.column
1163     publisher empty$ 
1164     { bbl.nopublisher enclose.square.brackets }
1165     { publisher }
1166     if$
1167   }
1168   if$
1169   output
1170 }
1171
1172 </strict>
1173

dress.publisher.date Otput.address.publisher.date is used in old styles. New styles use output.address.publisher.
1174 <*!(modern | strict)>
1175 FUNCTION {output.address.publisher.date}
1176 {
1177   output.address.publisher
1178   format.date output
1179 }
1180 </!(modern | strict)>
1181

output.bibitem
1182 <!*natbib>
1183 FUNCTION {output.bibitem}
1184 { newline$ 
1185   "\bibitem" write$ 
1186   cite$ bracify write$ 
1187   newline$ 
1188   language empty$ 
1189   { "english" 'curlanguage := }
1190   { language 'curlanguage := }
1191   if$
1192   "\selectlanguageifdefined" curlanguage bracify * write$ 
1193   newline$ 
1194   ""

```

```

1195 before.all 'output.state :=
1196 }
1197 {/!natbib}

format.full.names      In case of natbib option, we need make.full.names to compose output.bibitem, and the
author.full latter in its turn requires some more functions.

editor.full 1198 {*natbib}
author.editor.full 1199 FUNCTION {format.full.names}
make.full.names 1200 {'s :=
  output.bibitem 1201 language empty$ 
    1202   { "english" 'curlanguage := } 
    1203   { language 'curlanguage := } 
  1204 if$ 
  1205 #1 'nameptr := 
  1206 s num.names$ 'numnames := 
  1207 numnames 'namesleft := 
    1208   { namesleft #0 > } 
    1209   { s nameptr 
  1210     "{vv^}{ll}" format.name$ 't := 
  1211     nameptr #1 > 
    1212     { 
      1213       namesleft #1 > 
        1214         { ", " * t * } 
      1215       { 
        1216         numnames #2 > 
          1217           curlanguage "english" = 
          1218             and 
            1219               { "," * } 
            1220               'skip$ 
          1221             if$ 
            1222               t "others" = 
            1223               %t "~~others" = 
            1224               %or 
              1225                 %{ " et~al." * } 
              1226                 { " " bbl.etal * * } 
              1227                 %{ " and " * t * } 
              1228                 { " " bbl.and " " * * * t * } 
            1229             if$ 
              1230               } 
            1231             if$ 
          1232           } 
        1233         't 
      1234       if$ 
      1235       nameptr #1 + 'nameptr := 
      1236       namesleft #1 - 'namesleft := 
    1237   } 
  1238   while$ 
1239 }

1241 FUNCTION {author.full}
1242 { author empty$
```

```

1243     { "" }
1244     { author format.full.names }
1245     if$
1246 }
1247
1248 FUNCTION {editor.full}
1249 { editor empty$
1250     { "" }
1251     { editor format.full.names }
1252     if$
1253 }
1254
1255 FUNCTION {author.editor.full}
1256 { author empty$
1257     { editor empty$
1258         { "" }
1259         { editor format.full.names }
1260     if$
1261 }
1262     { author format.full.names }
1263     if$
1264 }
1265
1266 FUNCTION {make.full.names}
1267 { type$ "book" =
1268   type$ "inbook" =
1269   or
1270   'author.editor.full
1271   { type$ "proceedings" =
1272     'editor.full
1273     'author.full
1274     if$
1275   }
1276   if$
1277 }
1278
1279 % =====
1280 FUNCTION {output.bibitem}
1281 { newline$
1282   "\bibitem[" write$
1283   label write$
1284   ")\" make.full.names duplicate$ short.list =
1285   { pop$ }
1286   { * }
1287   if$
1288   "]{" * write$
1289   cite$ write$
1290   "}" write$
1291   language empty$
1292   { "english" 'curlanguage := }

```

```

1293     {language 'curlanguage := }
1294     if$
1295     "\selectlanguage{ifdefined}" curlanguage bracify * write$  

1296     newline$  

1297     ""  

1298     before.all 'output.state :=  

1299 }  

1300 % ======  

1301 %FUNCTION {output.bibitem}  

1302 %{ newline$  

1303 %  "\bibitem" write$  

1304 %%  author.key.label  

1305 %%  year parenthesify *  

1306 %%  "; lbl:" label **  

1307 %%  "; mfn:" make.full.names **  

1308 %  label  

1309 %  make.full.names *  

1310 %  bracketise write$  

1311 %  cite$ bracify write$  

1312 %  newline$  

1313 %  language empty$  

1314 %  { "english" 'curlanguage := }  

1315 %  {language 'curlanguage := }  

1316 %  if$  

1317 %  "\selectlanguage{ifdefined}" curlanguage bracify * write$  

1318 %  newline$  

1319 %  ""  

1320 %  before.all 'output.state :=  

1321 %}  

1322 % ======  

1323 </natbib>  

1324

n.dashify

1325 FUNCTION {n.dashify}
1326 { 't :=
1327   ""
1328   { t empty$ not }
1329   { t #1 #1 substring$ "-" =
1330     { t #1 #2 substring$ "--" = not
1331       { "--" *
1332         t #2 global.max$ substring$ 't :=
1333       }
1334       { { t #1 #1 substring$ "-" = }
1335         { "-" *
1336           t #2 global.max$ substring$ 't :=
1337         }
1338         while$  

1339       }
1340       if$  

1341     }

```

```

1342     { t #1 #1 substring$ *
1343         t #2 global.max$ substring$ 't :=
1344     }
1345     if$
1346   }
1347   while$
1348 }
1349

word.in
1350 FUNCTION {word.in}
1351 { bbl.iin
1352   " " *
1353

format.btitle
1354 FUNCTION {format.btitle}
1355 { title
1356 }
1357

.or.space.connect
1358 FUNCTION {tie.or.space.connect}
1359 { duplicate$ text.length$ #3 <
1360   { "~" }
1361   { " " }
1362   if$
1363   swap$ * *
1364 }
1365

tie.connect Declare function to insert unbreakable space before last word in stack.
1366 FUNCTION {tie.connect}
1367 { "~"
1368   swap$ * *
1369 }
1370
1371

either.or.chec
1372 FUNCTION {either.or.check}
1373 { empty$
1374   'pop$
1375   { "can't use both " swap$ * " fields in " * cite$ * warning$ }
1376   if$
1377 }
1378

format.bvolume
1379 FUNCTION {format.bvolume}
1380 { volume empty$
1381   { "" }
1382   { bbl.vvol volume tie.connect

```

```

1383     series empty$
1384     'skip$
1385     { bbl.of space.word * series emphasize * }
1386     if$
1387     "volume and number" number either.or.check
1388   }
1389   if$
1390 }
1391

mat.number.series
1392 FUNCTION {format.number.series}
1393 { volume empty$
1394   { number empty$
1395     { series field.or.null }
1396     { series empty$
1397       { "there's a number but no series in " cite$ * warning$
1398         bbl.nnr }
1399       {
1400         %new dblslash
1401         new.sentence
1402         series
1403         bbl.nr
1404         tie.or.space.connect}
1405       if$
1406       number tie.or.space.connect
1407     }
1408     if$
1409   }
1410   { "" }
1411   if$
1412 }
1413

is.num
1414 FUNCTION {is.num}
1415 { chr.to.int$
1416   duplicate$ "0" chr.to.int$ < not
1417   swap$ "9" chr.to.int$ > not and
1418 }
1419

extract.num
1420 FUNCTION {extract.num}
1421 { duplicate$ 't :=
1422   "" 's :=
1423   { t empty$ not }
1424   { t #1 #1 substring$
1425     t #2 global.max$ substring$ 't :=
1426     duplicate$ is.num
1427     { s swap$ * 's := }
1428     { pop$ "" 't := }
```

```

1429     if$
1430   }
1431   while$ s empty$ 'skip$ { pop$ s }
1432   if$ { pop$ s }
1433   if$ { pop$ bbl.th }
1434   if$ { pop$ bbl.st }
1435   if$ { pop$ bbl.nd }
1436   if$ { pop$ bbl.rd }
1437   if$ { pop$ bbl.th }
1438 (*debug)
eng.ord
1439 FUNCTION {eng.ord}
1440 { duplicate$ "1" swap$ *
1441   #-2 #1 substring$ "1" =
1442   { bbl.th * }
1443   { duplicate$ #-1 #1 substring$ duplicate$ "1" =
1444     { pop$ bbl.st * }
1445     { duplicate$ "2" =
1446       { pop$ bbl.nd * }
1447       { "3" =
1448         { pop$ bbl.rd * }
1449         { pop$ bbl.th * }
1450       if$ { pop$ bbl.th * }
1451     if$ { pop$ bbl.st * }
1452   if$ { pop$ bbl.nd * }
1453   if$ { pop$ bbl.rd * }
1454   if$ { pop$ bbl.th * }
1455   if$ { pop$ bbl.st * }
1456   if$ { pop$ bbl.nd * }
1457   if$ { pop$ bbl.rd * }
1458 }
1459 (/debug)
1460

```

convert.edition

```

1461 FUNCTION {convert.edition}
1462 { edition
1463 % edition extract.num "1" change.case$ 's :=
1464 % s "first" = s "1" = or
1465 % { bbl.first 't := }
1466 % { s "second" = s "2" = or
1467 %   { bbl.second 't := }
1468 %   { s "third" = s "3" = or
1469 %     { bbl.third 't := }
1470 %     { s "fourth" = s "4" = or
1471 %       { bbl.fourth 't := }
1472 %       { s "fifth" = s "5" = or
1473 %         { bbl.fifth 't := }
1474 %         { s #1 #1 substring$ is.num
1475 %           { s eng.ord 't := }

```

```

1476 %           { edition 't := }
1477 %           if$
1478 %           }
1479 %           if$
1480 %           }
1481 %           if$
1482 %           }
1483 %           if$
1484 %           }
1485 %           if$
1486 %           }
1487 %           if$
1488 %           t
1489 }
1490

format.edition
1491 FUNCTION {format.edition}
1492 { edition empty$ 
1493   { "" }
1494   { output.state mid.sentence =
1495     <!utf8>      { convert.edition "l" change.case$ " " * bbl.edition * }
1496     <!utf8>      { convert.edition "t" change.case$ " " * bbl.edition * }
1497     <utf8>        { convert.edition " " * bbl.edition * }
1498     <utf8>        { convert.edition " " * bbl.edition * }
1499   if$ 
1500   }
1501   if$ 
1502 }
1503
1504 INTEGERS { multiresult }
1505

multi.page.check
1506 FUNCTION {multi.page.check}
1507 { 't :=
1508   #0 'multiresult :=
1509   { multiresult not
1510     t empty$ not
1511     and
1512   }
1513   { t #1 #1 substring$
1514     duplicate$ "-" =
1515     swap$ duplicate$ "," =
1516     swap$ "+" =
1517     or or
1518     { #1 'multiresult := }
1519     { t #2 global.max$ substring$ 't := }
1520   if$ 
1521   }
1522   while$
```

```

1523   multiresult
1524 }
1525
format.pages
1526 FUNCTION {format.pages}
1527 { pages empty$
1528   { "" }
1529   { pages multi.page.check
1530     { bbl.ppages pages n.dashify tie.connect }
1531     { bbl.ppage pages tie.connect }
1532   if$}
1533 }
1534 if$}
1535 }
1536
format.pages.page
1537 FUNCTION {format.pages.page}
1538 { pages empty$
1539   { numpages empty$
1540     { "" }
1541     { numpages bbl.pages tie.connect }
1542   if$}
1543   { format.pages}
1544   if$}
1545 }
1546
mat.vol.num.pages
1547 FUNCTION {format.vol.num.pages}
1548 { volume field.or.null
1549   number empty$
1550   'skip$
1551   {
1552     ", no." number tie.or.space.connect *
1553     volume empty$
1554     { "there's a number but no volume in " cite$ * warning$ }
1555     'skip$
1556   if$}
1557 }
1558 if$}
1559 pages empty$
1560   'skip$
1561   { duplicate$ empty$
1562     { pop$ format.pages }
1563     { ":" * pages n.dashify * }
1564   if$}
1565 }
1566 if$}
1567 }
1568

```

```

format.volume
1569 FUNCTION {format.volume}
1570 { volume empty$ 
1571   { "" }
1572   { bbl.vvol volume tie.or.space.connect }
1573   if$ 
1574 }
1575

format.number
1576 FUNCTION {format.number}
1577 { number empty$ 
1578   { "" }
1579   { bbl.nr number tie.or.space.connect }
1580   if$ 
1581 }
1582
1583 {*debug}

mat.chapter.pages
1584 FUNCTION {format.chapter.pages}
1585 { chapter empty$ 
1586   'format.pages
1587   { type empty$ 
1588     { bbl.chapter }
1589     { type "l" change.case$ }
1590     if$ 
1591     chapter tie.or.space.connect
1592     pages empty$ 
1593     'skip$ 
1594     { ", " * format.pages * }
1595     if$ 
1596   }
1597   if$ 
1598 }
1599{/debug}
1600

empty.misc.check
1601 FUNCTION {empty.misc.check}
1602 { author empty$ title empty$ howpublished empty$ 
1603   month empty$ year empty$ note empty$ 
1604   and and and and and
1605   key empty$ not and
1606   { "all relevant fields are empty in " cite$ * warning$ }
1607   'skip$ 
1608   if$ 
1609 }
1610

ormat.thesis.type
1611 FUNCTION {format.thesis.type}

```

```

1612 { type empty$
1613   'skip$
1614   { pop$
1615 <!utf8>      type "t" change.case$
1616 <utf8>      type
1617 }
1618 if$
1619 }
1620

```

`chrep.type.number` Function to format report type and number.

```

1621 %FUNCTION {format.techrep.type.number}
1622 %{ type empty$
1623 %   { bbl.techreport }
1624 %   'type
1625 %   if$
1626 %   number empty$
1627 %%<!utf8>    { "t" change.case$ }
1628 %%<utf8>    { "" }
1629 %   { number tie.or.space.connect }
1630 %   if$
1631 %}
1632
1633 FUNCTION {format.techreport.type}
1634 { type empty$
1635   { bbl.techreport }
1636   'type
1637   if$
1638 }
1639

```

`author.before` Declare the function `author.before` to format list of authors in heading of a bibliographic record. If the number of authors is 4 or larger, some styles skip the list of authors in the beginning of the bibliographic record, while other styles always print that list. So, we need two version of `author.before`.

First version is used if `.bst` style is compiled without option `long`. It skips authors if their number is greater than or equal to 4 or if the author field is empty. Note that GOST requires for a long list of authors to be reduced. Hence this first version is preferable. Note also that `format.names` cuts list of names to 4 person at most in case if `modern` option is used. and `format.authors` just emphasizes `format.names`.

```

1640 {*}!long)
1641 FUNCTION {author.before}
1642 {
1643   author empty$
1644   'skip$
1645   {author num.names$ #4 <
1646     {format.authors output
1647       new.sentence}
1648     'skip$
1649   if$}

```

```

1650   if$  

1651 }  

1652 <!/long>  


```

Second version is used if `.bst` style is compiled with the option `long`. It skips only if the author field is empty.

```

1653 <*long>  

1654 FUNCTION {author.before}  

1655 {  

1656   author empty$  

1657     'skip$  

1658   { format.authors output  

1659     new.sentence  

1660   }  

1661   if$  

1662 }  

1663 </long>  

1664

```

`bookauthor.before` There are also 2 version of the function `bookauthor.before`. Not used anymore!

```

1665 %%<!*!long>  

1666 %%FUNCTION {bookauthor.before}  

1667 %%{  

1668 %% bookauthor empty$  

1669 %%   'skip$  

1670 %%   {bookauthor num.names$ #4 <  

1671 %%     {format.bookauthors output  

1672 %%       new.sentence}  

1673 %%     'skip$  

1674 %%   if$}  

1675 %%   if$  

1676 %%}  

1677 %%<!/long>  

1678 %%<*long>  

1679 %%FUNCTION {bookauthor.before}  

1680 %%{  

1681 %% bookauthor empty$  

1682 %%   'skip$  

1683 %%   { format.bookauthors output  

1684 %%     new.sentence  

1685 %%   }  

1686 %%   if$  

1687 %%}  

1688 %%</long>  

1689

```

`author.after` Functions `author.after` and `bookauthor.after` also have by 2 versions. They are used to write authors list after the title followed by a slash. In modern styles, compiled with option `modern`, the list of authors is always cut to at most 4 persons. The cut is performed first by `format.names.rev`, which is called by `format.authors.after`. For old styles, `author.after` just outputs formatted string whereas for new style it skips the string if the number of authors exceeds 3 (and author list

is not printed before the title).

```
1690 <!*modern>
1691 FUNCTION {author.after}
1692 {
1693   author empty$ 
1694   'skip$ 
1695   {format.authors.after output
1696     new.semicolumn }
1697   if$
1698 }
1699 </!modern>
1700 <*modern>
1701 <!*long>
1702 FUNCTION {author.after}
1703 {
1704   author empty$ 
1705   'skip$ 
1706   {author num.names$ #3 >
1707     {format.authors.after output
1708       new.semicolumn }
1709     'skip$ 
1710   if$}
1711   if$
1712 }
1713 </!long>
1714 <*long>
1715 FUNCTION {author.after} { }
1716 </long>
1717 </modern>
1718
```

bookauthor.after This function is used only in `inbook` entry. It always cuts list to 4 persons since `format.bookauthors.after` does that.

```
1719 FUNCTION {bookauthor.after}
1720 {
1721   bookauthor empty$ 
1722   'skip$ 
1723   {format.bookauthors.after output
1724     new.semicolumn }
1725   if$
1726 }
1727
```

organization.after

```
1728 FUNCTION {editor.organization.after}
1729 {
1730   compiler empty$ 
1731   {}
1732   { format.compiler.after  output
1733     new.semicolumn
1734   }
```

```

1735 if$  

1736 editor empty$  

1737 {}  

1738 { format.editors.after output  

1739 new.semicolumn  

1740 }  

1741 if$  

1742 organization empty$  

1743 {}  

1744 {organization output  

1745 new.semicolumn  

1746 }  

1747 if$  

1748 }  

1749  

format.url  

1750 FUNCTION {format.url}  

1751 { url empty$  

1752 { "" }  

1753 {  

1754 <!(modern | strict) " \BibUrl{ " url * "}" *  

1755 <(modern | strict) " URL: \BibUrl{ " url * "}" *  

1756 urldate empty$  

1757 { "" }  

1758 { " (" bbl.urldate * ":" * urldate * ")" * }  

1759 if$ *  

1760 }  

1761 if$  

1762 }  

1763  

format.annotate  

1764 FUNCTION {format.annotate}  

1765 { annote empty$  

1766 { "" }  

1767 { after.sentence 'output.state :=  

1768 "\BibAnnote{" annote add.period$ * "}" *  

1769 }  

1770 if$  

1771 }  

1772  

format.isbn Do we really need to provide electronic search for ISBN?  

1773 FUNCTION {format.isbn}  

1774 {  

1775 isbn empty$  

1776 { "" }  

1777 { "ISBN:~\href{http://isbndb.com/search-all.html?kw=" isbn *  

1778 "}" * isbn * "}" *  

1779 }  

1780 if$
```

```
1781 }
1782
```

add.doi The Digital Object Identifier (DOI) System is for identifying content objects in the digital environment. DOI names are assigned to any entity for use on digital networks. They are used to provide current information, including where they (or information about them) can be found on the Internet. Information about a digital object may change over time, including where to find it, but its DOI name will not change.

Function **add.doi** embraces last string in stack into hyperlink that links it to specified **doi** identificator at <http://dx.doi.org/> web-site.

```
1783 <*eprint>
1784 FUNCTION {add.doi}
1785 { duplicate$ empty$
1786   'skip$
1787   { doi empty$
1788     'skip$
1789     { "\href{http://dx.doi.org/" doi * "}{* swap$ * "}" * }
1790   if$
1791 }
1792   if$
1793 }
1794 </eprint>
```

If **.bst** style is compiled without **eprint** option, we just ignore **doi** field.

```
1795 <!*eprint>
1796 FUNCTION {add.doi} { }
1797 </!eprint>
1798
```

add.medium New in version 2.

```
1799 <!*strict>
1800 FUNCTION {add.medium} { }
1801 </!strict>
1802 <*strict>
1803 FUNCTION {add.medium}
1804 { duplicate$ empty$
1805   'skip$
1806   { medium empty$
1807     { " " * bbl.medium enclose.square.brackets * }
1808     { " " * medium enclose.square.brackets * }
1809 %%     { bbl.medium enclose.square.brackets * }
1810 %%     { medium enclose.square.brackets * }
1811   if$
1812 }
1813   if$
1814 }
1815 </strict>
1816
```

2.5 Electronic Publishing Information

The biblatex package provides three fields for electronic publishing information: `eprint`, `eprinttype`, and `eprintclass`. The `eprint` field is a verbatim field similar to `doi` which holds the identifier of the item. The `eprinttype` field holds the resource name, i. e., the name of the site or electronic archive. The optional `eprintclass` field is intended for additional information specific to the resource indicated by the `eprinttype` field. This could be a section, a path, classification information, etc. If the `eprinttype` field is available, the standard styles will use it as a literal label. In the following example, they would print “Resource: identifier” rather than the generic “`eprint`: identifier”:

```
eprint = {identifier},  
eprinttype = {Resource},
```

`format.eprint` The electronic identifier of an online publication. This is roughly comparable to a `doi` but specific to a certain archive, repository, service, or system. Also see `eprinttype` and `eprintclass`.

This function should use `url`. TO BE DONE YET.

```
1817 {*eprint}  
1818 %FUNCTION {format.eprint}  
1819 %{ eprint empty$  
1820 % { "" }  
1821 % { eprintclass empty$  
1822 % { " \href{http://arxiv.org/abs/" eprint * "}" * "{" * eprint * "}" * }  
1823 % { eprinttype empty$  
1824 % { " \href{http://arxiv.org/abs/" eprint * "}" *  
1825 % {" * eprintclass * "/" * eprint * "}" *  
1826 % }  
1827 % { " \href{http://arxiv.org/abs/" eprint * "}" *  
1828 % {" * eprinttype * ":" * eprintclass * "/" * eprint * "}" *  
1829 % }  
1830 % if$}  
1831 % if$}  
1832 %if$}  
1833  
1834 %FUNCTION {format.eprint}  
1835 %{ eprint empty$  
1836 % { "" }  
1837 % { eprinttype empty$  
1838 % { " }  
1839 % { eprinttype "~: " *}  
1840 % if$  
1841 % eprintclass empty$  
1842 % { }  
1843 % { eprintclass * "/" *}  
1844 % if$  
1845 % eprint *  
1846 % }  
1847 % if$  
1848 % url empty$  
1849 % { }
```

```

1850 %     { "\href{" url * "}{* swap$ * "}" *}
1851 %   if$
1852 %}
1853
1854 FUNCTION {format.eprint}
1855 { eprint empty$
1856   { "" }
1857   { eprinttype empty$
1858     { "" }
1859     { eprinttype "~: " *}
1860     if$
1861   eprintclass empty$
1862   { }
1863   { eprintclass * "/" *}
1864   if$
1865   url empty$
1866   { eprint * }
1867   { "\href{" * url * "}{* eprint * "}" *}
1868   if$
1869 }
1870   if$
1871 }
1872
1873 FUNCTION {output.eprint.url}
1874 {
1875   eprint empty$
1876   { format.url output }
1877   { format.eprint output }
1878   if$
1879 }
1880
1881 </eprint>
1882
1883 <!*eprint>
1884 FUNCTION {output.eprint.url}
1885 {
1886   format.url output
1887 }
1888 </!*eprint>
1889

```

2.6 Entry types

Text below in this section is borrowed from biblatex manual. Not every field listed below is actually supported by GOST styles. So description below should be considered as a goal or a feature request.

The lists below indicate the fields supported by each entry type. Note that the mapping of fields to an entry type is ultimately at the discretion of the bibliography style. The lists below therefore serve two purposes. They indicate the fields supported by the standard styles which ship with this package and they also serve as a model for custom styles. Note that the required fields

are not strictly required in all cases. The fields marked as optional are optional in a technical sense. Bibliographical formatting rules usually require more than just the required fields. The standard styles will generally not perform any formal validity checks, but custom styles may do so. Generic fields like abstract and annotation or label and shorthand are not included in the lists below because they are independent of the entry type.

2.6.1 Regular Types

article An article in a journal, magazine, newspaper, or other periodical which forms a self-contained unit with its own title. The title of the periodical is given in the `journalttitle` field. If the issue has its own title in addition to the main title of the periodical, it goes in the `issuetitle` field. Note that editor and related fields refer to the journal while translator and related fields refer to the article.

Required fields: `author`, `title`, `journalttitle`, `year/date`.

Optional fields: `translator`, `annotator`, `commentator`, `subtitle`, `titleaddon`, `editor`, `editora`, `editorb`, `editorc`, `journalsubtitle`, `issuetitle`, `issuesubtitle`, `language`, `origlanguage`, `series`, `volume`, `number`, `eid`, `issue`, `month`, `pages`, `version`, `note`, `issn`, `addendum`, `pubstate`, `doi`, `eprint`, `eprintclass`, `eprinttype`, `url`, `urldate`.

```
1890 FUNCTION {article}
1891 {
1892   output.bibitem
1893   author.before
1894 {natbib}  author format.key output
1895   format.title add.medium "title" output.check
1896   new.slash
1897   author.after
1898   new dblslash
1899   journal emphasize add.doi "journal" output.check % new in v.2
1900   new.block
1901   format.date "year" output.check
1902   new.block
1903   format.volume output
1904   format.number output
1905   new.block
1906   format.pages.page output
1907   new.block
1908   note output
1909   new.sentence
1910 %   format.url output
1911   output.eprint.url
1912   format.annotate output
1913   fin.entry
1914 }
1915
```

book A single-volume book with one or more authors where the authors share credit for the work as a whole. In biblatex, this entry type also covers the function of the `@inbook` type of traditional BibTeX.

Required fields: `author`, `title`, `year/date`.

Optional fields: `editor`, `editora`, `editorb`, `editorc`, `translator`, `annotator`, `commentator`, `introduction`,

foreword, afterword, subtitle, titleaddon, maintitle, mainsubtitle, maintitleaddon, language, origlanguage, volume, part, edition, volumes, series, number, note, publisher, location, isbn, chapter, pages, pagetotal, addendum, pubstate, doi, eprint, eprintclass, eprinttype, url, urldate.

```
1916 FUNCTION {book}
1917 {
1918   output.bibitem
1919   author.before
1920 <natbib> author format.key output
1921   format.btitle add.doi add.medium "title" output.check
1922   new.slash
1923   author.after
1924   editor.organization.after
1925   new.sentence
1926   format.number.series output
1927   new.block
1928   format.edition output
1929   new.block
1930   output.address.publisher
1931   format.date "year" output.check
1932   new.block
1933   format.bvolume output
1934   new.block
1935   format.pages.page output
1936   new.block
1937 <eprint> format.isbn output
1938 <eprint> new.block
1939   note output
1940   new.sentence
1941 % format.url output
1942   output.eprint.url
1943   format.annote output
1944   fin.entry
1945 }
1946
```

booklet A book-like work without a formal publisher or sponsoring institution. Use the field howpublished to supply publishing information in free format, if applicable. The field type may be useful as well.

Required fields: author/editor, title, year/date.

Optional fields: subtitle, titleaddon, language, howpublished, type, note, location, chapter, pages, pagetotal, addendum, pubstate, doi, eprint, eprintclass, eprinttype, url, urldate.

```
1947 FUNCTION {booklet}
1948 {
1949   output.bibitem
1950   author.before
1951 <natbib> author format.key output
1952   format.title add.doi add.medium "title" output.check
1953   new.slash
1954   author.after
1955   editor.organization.after
1956   new.block
```

```

1957 howpublished output
1958 address output
1959 format.date "year" output.check
1960 new.block
1961 note output
1962 new.sentence
1963 % format.url output
1964 output.eprint.url
1965 format.annote output
1966 fin.entry
1967 }
1968

```

inbook A part of a book which forms a self-contained unit with its own title. Note that the profile of this entry type is different from standard BibTeX.

Required fields: author, title, booktitle, year/date.

Optional fields: bookauthor, editor, editora, editorb, editorc, translator, annotator, commentator, introduction, foreword, afterword, subtitle, titleaddon, maintitle, mainsubtitle, maintitleaddon, booksubtitle, booktitleaddon, language, origlanguage, volume, part, edition, volumes, series, number, note, publisher, location, isbn, chapter, pages, addendum, pubstate, doi, eprint, eprintclass, eprinttype, url, urldate.

```

1969 FUNCTION {inbook}
1970 {
1971   output.bibitem
1972   author.before
1973 {natbib} author format.key output
1974   format.btitle add.doi add.medium "title" output.check
1975   new.slash
1976   author.after
1977   new.dbslash
1978 % bookauthor.before
1979   booktitle "booktitle" output.check
1980   new.slash
1981   bookauthor.after
1982   editor.organization.after
1983   new.block
1984   format.edition output
1985   new.block
1986   format.number.series output
1987   new.sentence
1988   output.address.publisher
1989   format.date "year" output.check
1990   new.block
1991   format.bvolume output
1992   new.block
1993   format.pages.page output
1994   new.block
1995 {eprint} format.isbn output
1996 {eprint} new.block
1997 note output

```

```
1998 new.sentence
1999 % format.url output
2000 output.eprint.url
2001 format.annote output
2002 fin.entry
2003 }
2004
```

incollection A contribution to a collection which forms a self-contained unit with a distinct author and title.
The author refers to the title, the editor to the booktitle, i. e., the title of the collection.

Required fields: author, editor, title, booktitle, year/date.

Optional fields: editora, editorb, editorc, translator, annotator, commentator, introduction, foreword, afterword, subtitle, titleaddon, maintitle, mainsubtitle, maintitleaddon, bookssubtitle, booktitleaddon, language, origlanguage, volume, part, edition, volumes, series, number, note, publisher, location, isbn, chapter, pages, addendum, pubstate, doi, eprint, eprintclass, eprinttype, url, urldate.

```
2005 FUNCTION {incollection}
2006 {
2007   output.bibitem
2008   author.before
2009 {natbib}  author format.key output
2010 new.sentence
2011 format.title add.doi add.medium "title" output.check
2012 new.slash
2013 author.after
2014 new.dbslash
2015 booktitle "booktitle" output.check
2016 new.slash
2017 editor.organization.after
2018 new.block
2019 output.address.publisher
2020 format.date "year" output.check
2021 new.block
2022 format.bvolume output
2023 format.number.series output
2024 new.block
2025 format.pages.page output
2026 new.block
2027 note output
2028 new.sentence
2029 % format.url output
2030 output.eprint.url
2031 format.annote output
2032 fin.entry
2033 }
2034
```

proceedings A single-volume conference proceedings. This type is very similar to @collection. It supports an optional organization field which holds the sponsoring institution. The editor is omitted.

Required fields: editor, title, year/date.

Optional fields: subtitle, titleaddon, maintitle, mainsubtitle, maintitleaddon, eventtitle, eventdate, venue, language, volume, part, volumes, series, number, note, organization, publisher, location, month, isbn, chapter, pages, pagetotal, addendum, pubstate, doi, eprint, eprintclass, eprinttype, url, urldate.

```

2035 FUNCTION {proceedings}
2036 {
2037   output.bibitem
2038   <natbib> editor format.key output
2039   format.btitle add.doi add.medium "title" output.check
2040   new.slash
2041   editor.organization.after
2042   new.block
2043   format.bvolume output
2044   format.number.series output
2045 % address empty$ 
2046 %   { publisher output
2047 %     format.date "year" output.check
2048 %   }
2049 %   { address outputnonnull
2050 %     format.date "year" output.check
2051 %     new.sentence
2052 %     publisher output
2053 %   }
2054 % iff$ 
2055   output.address.publisher
2056   format.date "year" output.check
2057   new.block
2058   note output
2059   new.sentence
2060 %   format.url output
2061   output.eprint.url
2062   format.annote output
2063   fin.entry
2064 }
2065

```

`inproceedings` An article in a conference proceedings. This type is similar to `@incollection`. It supports an optional organization field.

Required fields: author, editor, title, booktitle, year/date.

Optional fields: subtitle, titleaddon, maintitle, mainsubtitle, maintitleaddon, booksubtitle, booktitleaddon, eventtitle, eventdate, venue, language, volume, part, volumes, series, number, note, organization, publisher, location, month, isbn, chapter, pages, addendum, pubstate, doi, eprint, eprintclass, eprinttype, url, urldate.

```

2066 FUNCTION {inproceedings}
2067 { output.bibitem
2068   author.before
2069   <natbib> author format.key output
2070   new.sentence
2071   format.title add.doi add.medium "title" output.check
2072   new.slash

```

```

2073 author.after
2074 new dblslash
2075 booktitle "booktitle" output.check
2076 new slash
2077 editor.organization.after
2078 new.block
2079 format.bvolume output
2080 format.number.series output
2081 new.block
2082 % address empty$
2083 %   { publisher output
2084 %     format.date "year" output.check
2085 %
2086 %   { address outputnonnull
2087 %     new.column
2088 %     publisher output
2089 %     format.date "year" output.check
2090 %
2091 %   if$
2092 output.address.publisher
2093 format.date "year" output.check
2094 new.block
2095 format.pages.page output
2096 new.block
2097 note output
2098 new.sentence
2099 % format.url output
2100 output.eprint.url
2101 format.annotate output
2102 fin.entry
2103 }
2104

```

manual Technical or other documentation, not necessarily in printed form. The author or editor is omissionable.

Required fields: author/editor, title, year/date.

Optional fields: subtitle, titleaddon, language, edition, type, series, number, version, note, organization, publisher, location, isbn, chapter, pages, pagetotal, addendum, pubstate, doi, eprint, eprintclass, eprinttype, url, urldate.

```

2105 FUNCTION {manual}
2106 { output.bibitem
2107   author empty$
2108   { organization empty$
2109     'skip$
2110     { organization outputnonnull
2111       address output
2112     }
2113     if$
2114   }
2115   { format.authors outputnonnull }
2116   if$}

```

```

2117 <natbib> author format.key output
2118   new.block
2119   format.btitle add.doi add.medium "title" output.check
2120   author empty$ 
2121     { organization empty$ 
2122     {
2123       address new.block.checka
2124       address output
2125     }
2126     'skip$ 
2127     if$ 
2128   }
2129   {
2130     organization address new.block.checkb
2131     organization output
2132     address output
2133   }
2134   if$ 
2135   format.edition output
2136   format.date "year" output.check
2137   new.block
2138   note output
2139   new.sentence
2140 %  format.url output
2141   output.eprint.url
2142   format.annotate output
2143   fin.entry
2144 }
2145

```

misc A fallback type for entries which do not fit into any other category. Use the field howpublished to supply publishing information in free format, if applicable. The field type may be useful as well. author, editor, and year are omission.

Required fields: author/editor, title, year/date.

```

2146 FUNCTION {misc}
2147 { output.bibitem
2148   format.authors output
2149 <natbib> author format.key output
2150   title howpublished new.sentence.checkb
2151   format.title add.medium output
2152   howpublished new.block.checka
2153   howpublished output
2154   new.block
2155   format.date "year" output.check
2156   new.block
2157   note output
2158   new.sentence
2159 %  format.url output
2160   output.eprint.url
2161   format.annotate output

```

```
2162   fin.entry
2163 }
2164
```

unpublished A work with an author and a title which has not been formally published, such as a manuscript or the script of a talk. Use the fields howpublished and note to supply additional information in free format, if applicable.

Required fields: author, title, year/date.

Optional fields: subtitle, titleaddon, language, howpublished, note, location, isbn, date, month, year, addendum, pubstate, url, urldate

```
2165 FUNCTION {unpublished}
2166 { output.bibitem
2167   author.before
2168 {natbib}  author format.key output
2169   format.btitle "title" output.check
2170   new.slash
2171   author.after
2172   editor.organization.after
2173   new.block
2174   format.date "year" output.check
2175   new.block
2176   note "note" output.check
2177   new.sentence
2178 %  format.url output
2179   output.eprint.url
2180   format.annotate output
2181   fin.entry
2182 }
2183
```

online An online resource. Author, editor, and year are ommissible. This entry type is intended for sources such as web sites which are intrinsically online resources. Note that all entry types support the url field. For example, when adding an article from an online journal, it may be preferable to use the @article type and its url field.

Required fields: author/editor, title, year/date, url.

Optional fields: subtitle, titleaddon, language, version, note, organization, date, month, year, addendum, pubstate, urldate.

```
2184 FUNCTION {online}
2185 { output.bibitem
2186   format.authors output
2187 {natbib}  author format.key output
2188   title howpublished new.sentence.checkb
2189   format.title add.doi add.medium "title" output.check
2190 %  howpublished new.block.checka
2191   howpublished new.dblslash.checka
2192   howpublished enclose.square.brackets output
2193   editor.organization.after
2194   new.sentence
2195   new.block
2196   output.address.publisher
```

```

2197  format.date output
2198  new.block
2199 % format.url output
2200  output.eprint.url
2201  new.sentence
2202  note output
2203  format.annotate output
2204  fin.entry
2205 }
2206

internet      New in version 2012.02.15.
www 2207 FUNCTION {internet}  {online}
webpage 2208 FUNCTION {www}      {online}
ielectronic 2209 FUNCTION {webpage}  {online}
2210 FUNCTION {electronic} {online}

thesis      New in version 2012.02.02.
A thesis written for an educational institution to satisfy the requirements for a degree. Use the type field to specify the type of thesis.
Required fields: author, title, type, institution, year/date.
Optional fields: subtitle, titleaddon, language, note, location, month, isbn, chapter, pages, pagetotal, addendum, pubstate, doi, eprint, eprintclass, eprinttype, url, urldate
2211 <*!(modern | strict)>
2212 FUNCTION {thesis}
2213 { output.bibitem
2214  format.authors "author" output.check
2215 <natbib> author format.key output
2216  new.sentence
2217  format.btitle "title" output.check
2218  new.column
2219  bbl.phdthesis format.thesis.type outputnonnull
2220  new.slash
2221  school "school" output.check
2222  new.block
2223  output.address.publisher.date
2224  new.block
2225  format.pages.page output
2226  note output
2227  new.sentence
2228  format.url output
2229  format.annotate output
2230  fin.entry
2231 }
2232 </!(modern | strict)>
2233 <*modern | strict>
2234 FUNCTION {thesis}
2235 { output.bibitem
2236  format.authors "author" output.check
2237 <natbib> author format.key output
2238  new.sentence

```

```

2239  format.btitle add.doi add.medium "title" output.check
2240  new.column
2241 % bbl.phdthesis format.thesis.type outputnonnull
2242 type "type" output.check
2243 new.column
2244 number output
2245 new.slash
2246 format.authors.after output
2247 new.semicolumn
2248 school "school" output.check
2249 new.block
2250 output.address.publisher
2251 format.date "year" output.check
2252 new.block
2253 format.pages.page output
2254 new.block
2255 note output
2256 new.sentence
2257 % format.url output
2258 output.eprint.url
2259 format.annote output
2260 fin.entry
2261 }
2262 </modern | strict>
2263

```

report New in version 2012.02.02.

A technical report, research report, or white paper published by a university or some other institution. Use the type field to specify the type of report. The sponsoring institution goes in the institution field.

Required fields: author, title, type, institution, year/date.

Optional fields: subtitle, titleaddon, language, number, version, note, location, month, isrn, chapter, pages, pagetotal, addendum, pubstate, doi, eprint, eprintclass, eprinttype, url, urldate.

```

2264 %FUNCTION {report}
2265 ${
2266 % output.bibitem
2267 % author.before
2268 % new.sentence
2269 % format.title add.doi add.medium "title" output.check
2270 % new.column
2271 %% format.techrep.type.number outputnonnull
2272 % type "type" output.check
2273 % new.slash
2274 % author.after
2275 % editor.organization.after
2276 % new.block
2277 % address output
2278 % new.column
2279 % institution "institution" output.check
2280 % format.date "year" output.check

```

```

2281 % new.block
2282 % note output
2283 % new.block          % v.2
2284 % format.pages.page output % v.2
2285 % new.sentence
2286 %% format.url output
2287 % output.eprint.url
2288 % format.annote output
2289 % fin.entry
2290 %}
2291 FUNCTION {report}
2292 {
2293   output.bibitem
2294 % author.before
2295 % new.sentence
2296   format.title add.doi add.medium "title" output.check
2297 {natbib}  title format.key output
2298   new.column
2299 % format.techrep.type.number outputnonnull
2300 % type "type" output.check
2301 % format.report.type.number "type" output.check
2302 type "type" output.check
2303 new.column
2304 number output
2305 new.slash
2306 institution "institution" output.check
2307 new.semicolumn
2308 format.chief.after output % from editor field
2309 new.semicolumn
2310 format.executor.after output % from author field
2311 new.block
2312 address output
2313 new.column
2314 organization output
2315 format.date "year" output.check
2316 new.block          % v.2
2317 format.pages.page output % v.2
2318 new.sentence % или new.block ?
2319 output.eprint.url
2320 new.block
2321 note output
2322 format.annote output
2323 fin.entry
2324 }
2325

```

2.6.2 Type Aliases

The entry types listed in this section are provided for backwards compatibility with traditional BibTeX styles. These aliases are resolved by BibTeX as the data is exported. Bibliography styles

will see the entry type the alias points to, not the alias name. All unknown entry types are generally exported as @misc.

`phdthesis` Similar to @thesis except that the type field is optional and defaults to the localized term ‘PhD thesis’. You may still use the type field to override that.

```
2326 <*!(modern | strict)>
2327 FUNCTION {phdthesis}
2328 { output.bibitem
2329   format.authors "author" output.check
2330   new.sentence
2331   format.btitle "title" output.check
2332   new.column
2333   bbl.phdthesis format.thesis.type outputnonnull
2334   new.slash
2335   school "school" output.check
2336   new.block
2337   output.address.publisher.date
2338   new.block
2339   format.pages.page output
2340   note output
2341   new.sentence
2342   format.url output
2343   format.annotate output
2344   fin.entry
2345 }
2346 </!(modern | strict)>
2347 <*modern | strict>
2348 FUNCTION {phdthesis}
2349 { output.bibitem
2350   format.authors "author" output.check
2351   <natbib> author format.key output
2352   new.sentence
2353   format.btitle add.doi add.medium "title" output.check
2354   new.column
2355   bbl.phdthesis format.thesis.type outputnonnull
2356   new.column
2357   number output
2358   new.slash
2359   format.authors.after output
2360   new.semicolumn
2361   school "school" output.check
2362   new.block
2363   output.address.publisher
2364   format.date "year" output.check
2365   new.block
2366   format.pages.page output
2367   new.block
2368   note output
2369   new.sentence
2370 % format.url output
2371   output.eprint.url
```

```

2372   format.annotate output
2373   fin.entry
2374 }
2375 </modern | strict>
2376

mastersthesis Similar to @thesis except that the type field is optional and defaults to the localized term ‘Master’s thesis’. You may still use the type field to override that.

2377 <*!(modern | strict)>
2378 FUNCTION {mastersthesis}
2379 { output.bibitem
2380   format.authors "author" output.check
2381 <natbib> author format.key output
2382   new.sentence
2383   format.btitle "title" output.check
2384   new.column
2385   bbl.mthesis format.thesis.type output.nonnull
2386   new.slash
2387   school "school" output.check
2388   new.block
2389   output.address.publisher.date
2390   new.block
2391   format.pages.page output
2392   note output
2393   new.sentence
2394   format.url output
2395   format.annotate output
2396   fin.entry
2397 }
2398 <!/!(modern | strict)>
2399 <*modern | strict>
2400 FUNCTION {masterthesis}
2401 { output.bibitem
2402   format.authors "author" output.check
2403 <natbib> author format.key output
2404   new.sentence
2405   format.btitle add.doi add.medium "title" output.check
2406   new.column
2407   bbl.mthesis format.thesis.type output.nonnull
2408   new.column
2409   number output
2410   new.slash
2411   format.authors.after output
2412   new.semicolumn
2413   school "school" output.check
2414   new.block
2415   output.address.publisher
2416   format.date "year" output.check
2417   new.block
2418   format.pages.page output
2419   new.block

```

```

2420 note output
2421 new.sentence
2422 % format.url output
2423 output.eprint.url
2424 format.annote output
2425 fin.entry
2426 }
2427 </modern | strict>
2428

```

dscithesis Similar to `@thesis` except that the type field is optional and defaults to the localized term ‘Doctor’s of sciences thesis’. You may still use the type field to override that.

```

2429 <*!(modern | strict)>
2430 FUNCTION {dscithesis}
2431 { output.bibitem
2432   format.authors "author" output.check
2433 <natbib> author format.key output
2434   new.sentence
2435   format.btitle "title" output.check
2436   new.column
2437   bbl.dscithesis format.thesis.type output.nonnull
2438   new.slash
2439   school "school" output.check
2440   new.block
2441   output.address.publisher.date
2442   new.block
2443   format.pages.page output
2444   note output
2445   new.sentence
2446   format.url output
2447   format.annote output
2448   fin.entry
2449 }
2450 <!/!(modern | strict)>
2451 <*modern | strict>
2452 FUNCTION {dscithesis}
2453 { output.bibitem
2454   format.authors "author" output.check
2455 <natbib> author format.key output
2456   new.sentence
2457   format.btitle add.doi add.medium "title" output.check
2458   new.column
2459   bbl.dscithesis format.thesis.type output.nonnull
2460   new.column
2461   number output
2462   new.slash
2463   format.authors.after output
2464   new.semicolumn
2465   school "school" output.check
2466   new.block
2467   output.address.publisher

```

```

2468   format.date "year" output.check
2469   new.block
2470   format.pages.page output
2471   new.block
2472   note output
2473   new.sentence
2474 %  format.url output
2475   output.eprint.url
2476   format.annotate output
2477   fin.entry
2478 }
2479 {/modern | strict)
2480

conference
2481 FUNCTION {conference} { inproceedings }
2482

techreport      TechReport is similar to @report except that the type field is optional and defaults to the
                localized term ‘technical report’. You may still use the type field to override that.
2483 %FUNCTION {techreport}
2484 %{
2485 %  output.bibitem
2486 %  author.before
2487 %  new.sentence
2488 %  format.title add.doi add.medium "title" output.check
2489 %  new.column
2490 %  format.techrep.type.number outputnonnull
2491 %  new.slash
2492 %  author.after
2493 %  editor.organization.after
2494 %  new.block
2495 %  address output
2496 %  new.column
2497 %  institution "institution" output.check
2498 %  format.date "year" output.check
2499 %  new.block
2500 %  note output
2501 %  new.block          % v.2
2502 %  format.pages.page output % v.2
2503 %  new.sentence
2504 %%  format.url output
2505 %  output.eprint.url
2506 %  format.annotate output
2507 %  fin.entry
2508 %}

2509
2510 FUNCTION {techreport}
2511 {
2512   output.bibitem
2513 %  author.before

```

```

2514 % new.sentence
2515   format.title add.doi add.medium "title" output.check
2516 ⟨natbib⟩ title format.key output
2517   new.column
2518 % format.techrep.type.number outputnonnull
2519 % type "type" output.check
2520 % format.report.type.number "type" output.check
2521 % type output
2522   format.techreport.type output
2523   new.column
2524   number output
2525   new.slash
2526   institution "institution" output.check
2527   new.semicolumn
2528   format.chief.after output % from editor field
2529   new.semicolumn
2530   format.executor.after output % from author field
2531   new.block
2532   address output
2533   new.column
2534   organization output
2535   format.date "year" output.check
2536   new.block          % v.2
2537   format.pages.page output % v.2
2538   new.sentence % или new.block ?
2539   output.eprint.url
2540   new.block
2541   note output
2542   format.annotate output
2543   fin.entry
2544 }
2545
2546

default.type
2547 FUNCTION {default.type} { misc }
2548

```

2.7 Month Abbreviations

```

2549 MACRO {jan} {"\bbljan{}"}
2550 MACRO {feb} {"\bblfeb{}"}
2551 MACRO {mar} {"\bblmar{}"}
2552 MACRO {apr} {"\bblapr{}"}
2553 MACRO {may} {"\bblmay{}"}
2554 MACRO {jun} {"\bbljun{}"}
2555 MACRO {jul} {"\bbljul{}"}
2556 MACRO {aug} {"\bblaug{}"}
2557 MACRO {sep} {"\bblsep{}"}
2558 MACRO {oct} {"\bbloct{}"}
2559 MACRO {nov} {"\bblnov{}"}

```

```
2560 MACRO {dec} {"\bbld{dec}{}}"}  
2561
```

2.8 Journal Abbreviations

2562

2.9 Journal abbreviations

2.9.1 Physics and astronomy

Borrowed from physjour.mbs of package custom-bib.

```
2563 MACRO {aa} {"Astron. \& Astrophys."}  
2564 MACRO {aasup} {"Astron. \& Astrophys. Suppl. Ser."}  
2565 MACRO {aj} {"Astron. J."}  
2566 MACRO {aph} {"Acta Phys."}  
2567 MACRO {advp} {"Adv. Phys."}  
2568 MACRO {ajp} {"Amer. J. Phys."}  
2569 MACRO {ajm} {"Amer. J. Math."}  
2570 MACRO {amsci} {"Amer. Sci."}  
2571 MACRO {anofd} {"Ann. Fluid Dyn."}  
2572 MACRO {am} {"Ann. Math."}  
2573 MACRO {ap} {"Ann. Phys. (NY)"}  
2574 MACRO {adp} {"Ann. Phys. (Leipzig)"}  
2575 MACRO {ao} {"Appl. Opt."}  
2576 MACRO {apl} {"Appl. Phys. Lett."}  
2577 MACRO {app} {"Astroparticle Phys."}  
2578 MACRO {apj} {"Astrophys. J."}  
2579 MACRO {apjsup} {"Astrophys. J. Suppl."}  
2580 MACRO {apss} {"Astrophys. Space Sci."}  
2581 MACRO {araa} {"Ann. Rev. Astron. Astrophys."}  
2582 MACRO {baas} {"Bull. Amer. Astron. Soc."}  
2583 MACRO {baps} {"Bull. Amer. Phys. Soc."}  
2584 MACRO {cmp} {"Comm. Math. Phys."}  
2585 MACRO {cpam} {"Commun. Pure Appl. Math."}  
2586 MACRO {cppcf} {"Comm. Plasma Phys. \& Controlled Fusion"}  
2587 MACRO {cpc} {"Comp. Phys. Comm."}  
2588 MACRO {cqg} {"Class. Quant. Grav."}  
2589 MACRO {cra} {"C. R. Acad. Sci. A"}  
2590 MACRO {fed} {"Fusion Eng. \& Design"}  
2591 MACRO {ft} {"Fusion Tech."}  
2592 MACRO {grg} {"Gen. Relativ. Gravit."}  
2593 MACRO {ieeens} {"IEEE Trans. Nucl. Sci."}  
2594 MACRO {ieeeeps} {"IEEE Trans. Plasma Sci."}  
2595 MACRO {ijimw} {"Interntl. J. Infrared \& Millimeter Waves"}  
2596 MACRO {ip} {"Infrared Phys."}  
2597 MACRO {irp} {"Infrared Phys."}  
2598 MACRO {jap} {"J. Appl. Phys."}  
2599 MACRO {jasa} {"J. Acoust. Soc. America"}  
2600 MACRO {jcp} {"J. Comp. Phys."}  
2601 MACRO {jchp} {"J. Chem. Phys."}  
2602 MACRO {jetp} {"Sov. Phys.--JETP"}
```

```

2603 MACRO {jfe} {"J. Fusion Energy"}
2604 MACRO {jfm} {"J. Fluid Mech."}
2605 MACRO {jmp} {"J. Math. Phys."}
2606 MACRO {jne} {"J. Nucl. Energy"}
2607 MACRO {jnec} {"J. Nucl. Energy, C: Plasma Phys., Accelerators, Thermonucl. Res."}
2608 MACRO {jnm} {"J. Nucl. Mat."}
2609 MACRO {jpc} {"J. Phys. Chem."}
2610 MACRO {jpp} {"J. Plasma Phys."}
2611 MACRO {jpsj} {"J. Phys. Soc. Japan"}
2612 MACRO {jsi} {"J. Sci. Instrum."}
2613 MACRO {jvst} {"J. Vac. Sci. \& Tech."}
2614 MACRO {nat} {"Nature"}
2615 MACRO {nature} {"Nature"}
2616 MACRO {nedf} {"Nucl. Eng. \& Design/Fusion"}
2617 MACRO {nf} {"Nucl. Fusion"}
2618 MACRO {nim} {"Nucl. Inst. \& Meth."}
2619 MACRO {nimpr} {"Nucl. Inst. \& Meth. in Phys. Res."}
2620 MACRO {np} {"Nucl. Phys."}
2621 MACRO {npb} {"Nucl. Phys. B"}
2622 MACRO {nt/f} {"Nucl. Tech./Fusion"}
2623 MACRO {npbpc} {"Nucl. Phys. B (Proc. Suppl.)"}
2624 MACRO {inc} {"Nuovo Cimento"}
2625 MACRO {nc} {"Nuovo Cimento"}
2626 MACRO {pf} {"Phys. Fluids"}
2627 MACRO {pfa} {"Phys. Fluids A: Fluid Dyn."}
2628 MACRO {pfb} {"Phys. Fluids B: Plasma Phys."}
2629 MACRO {pl} {"Phys. Lett."}
2630 MACRO {pla} {"Phys. Lett. A"}
2631 MACRO {plb} {"Phys. Lett. B"}
2632 MACRO {prep} {"Phys. Rep."}
2633 MACRO {pnas} {"Proc. Nat. Acad. Sci. USA"}
2634 MACRO {pp} {"Phys. Plasmas"}
2635 MACRO {ppcf} {"Plasma Phys. \& Controlled Fusion"}
2636 MACRO {phitrs1} {"Philos. Trans. Roy. Soc. London"}
2637 MACRO {prl} {"Phys. Rev. Lett."}
2638 MACRO {pr} {"Phys. Rev."}
2639 MACRO {physrev} {"Phys. Rev."}
2640 MACRO {pra} {"Phys. Rev. A"}
2641 MACRO {prb} {"Phys. Rev. B"}
2642 MACRO {prc} {"Phys. Rev. C"}
2643 MACRO {prd} {"Phys. Rev. D"}
2644 MACRO {pre} {"Phys. Rev. E"}
2645 MACRO {ps} {"Phys. Scripta"}
2646 MACRO {procrs1} {"Proc. Roy. Soc. London"}
2647 MACRO {rmp} {"Rev. Mod. Phys."}
2648 MACRO {rsi} {"Rev. Sci. Inst."}
2649 MACRO {science} {"Science"}
2650 MACRO {sciam} {"Sci. Am."}
2651 MACRO {sam} {"Stud. Appl. Math."}
2652 MACRO {sjpp} {"Sov. J. Plasma Phys."}

```

```

2653 MACRO {spd} {"Sov. Phys.--Doklady"}
2654 MACRO {sptp} {"Sov. Phys.--Tech. Phys."}
2655 MACRO {spu} {"Sov. Phys.--Uspekhi"}
2656 MACRO {st} {"Sky and Telesc."}
2657

```

2.9.2 Optics

Borrowed from photjour.mbs.

```

2658 MACRO {appopt} {"Appl. Opt."}
2659 MACRO {bell} {"Bell Syst. Tech. J."}
2660 MACRO {ell} {"Electron. Lett."}
2661 MACRO {jasp} {"J. Appl. Spectr."}
2662 MACRO {jqe} {"IEEE J. Quantum Electron."}
2663 MACRO {jlwt} {"J. Lightwave Technol."}
2664 MACRO {jmo} {"J. Mod. Opt."}
2665 MACRO {josa} {"J. Opt. Soc. America"}
2666 MACRO {josaa} {"J. Opt. Soc. Amer.~A"}
2667 MACRO {josab} {"J. Opt. Soc. Amer.~B"}
2668 MACRO {jdp} {"J. Phys. (Paris)"}
2669 MACRO {oc} {"Opt. Commun."}
2670 MACRO {ol} {"Opt. Lett."}
2671 MACRO {os} {"Opt. Spectrosc."}
2672 MACRO {phtl} {"IEEE Photon. Technol. Lett."}
2673 MACRO {pspie} {"Proc. Soc. Photo-Opt. Instrum. Eng."}
2674 MACRO {sjot} {"Sov. J. Opt. Technol."}
2675 MACRO {sjqe} {"Sov. J. Quantum Electron."}
2676 MACRO {sleb} {"Sov. Phys.--Leb. Inst. Rep."}
2677 MACRO {stph} {"Sov. Phys.--Techn. Phys."}
2678 MACRO {stphl} {"Sov. Techn. Phys. Lett."}
2679 MACRO {vr} {"Vision Res."}
2680 MACRO {zph} {"Z. f. Physik"}
2681 MACRO {zphb} {"Z. f. Physik~B"}
2682 MACRO {zphd} {"Z. f. Physik~D"}

```

2.9.3 Physics of condensed Matter

```

2683 MACRO {sse} {"Solid-State Electron."}
2684 MACRO {pss} {"Phys. Sol. State"}
2685 MACRO {sst} {"Semicond. Sci. Tech."}
2686 MACRO {nl} {"Nano Lett."}
2687
2688 READ
2689

```

2.10 Sorting

Next chunk of code governs sorting reference list by authors' names and titles.

```

2690 {*sort | natbib}
2691

```

```

sortify
2692 FUNCTION {sortify}
2693 { purify$ 
2694   (!utf8) "l" change.case$ 
2695 }
2696 ⟨/sort | natbib⟩
2697

sort.format.names
2698 ⟨*sort⟩
2699 %% =====
2700 %% This version from old Gost package
2701 %%<!*natbib>
2702 FUNCTION {sort.format.names}
2703 { 's :=
2704   #1 'nameptr :=
2705   ""
2706   s num.names$ 'numnames :=
2707   numnames 'namesleft :=
2708   { namesleft #0 > }
2709   { nameptr #1 >
2710     { " " * }
2711     'skip$ 
2712     if$ 
2713     s nameptr
2714     "{vv{ } }{ll{ }}{ ff{ }}{ jj{ }}"
2715     format.name$ 't :=
2716     nameptr numnames = t "others" = and
2717     { "et al" * }
2718     %{ bbl.etal * }
2719     { t sortify * }
2720     if$ 
2721     nameptr #1 + 'nameptr :=
2722     namesleft #1 - 'namesleft :=
2723   }
2724   while$ 
2725 }
2726 %%</!*natbib>
2727 %% This version from plainnat.bst
2728 %% It ignores second and subsequent authors but include year.
2729 %%<!*natbib>
2730 %FUNCTION {sort.format.names}
2731 %{ 's :=
2732 %  #1 'nameptr :=
2733 %  ""
2734 %  s num.names$ 'numnames :=
2735 %  numnames 'namesleft :=
2736 %  { namesleft #0 > }
2737 %  {
2738 %    s nameptr "{vv{ } }{ll{ }}{ ff{ }}{ jj{ }}" format.name$ 't :=
2739 %    nameptr #1 >

```

```

2740 %
2741 %      {
2742 %          "    "
2743 %          namesleft #1 = t "others" = and
2744 %              { "zzzzz" * }
2745 %              { numnames #2 > nameptr #2 = and
2746 %                  { "zz" * year field.or.null * "    " * }
2747 %                  'skip$ if$
2748 %                  t sortify *
2749 %              }
2750 %          if$ }
2751 %      }
2752 %      { t sortify * }
2753 %      if$ nameptr #1 + 'nameptr :=
2754 %      namesleft #1 - 'namesleft :=
2755 %
2756 %
2757 %  while$ }
2758 %}
2759 %%</natbib>
2760 %% =====
2761

sort.format.title
2762 FUNCTION {sort.format.title}
2763 { 't :=
2764   "A " #2
2765   "An " #3
2766   "The " #4 t chop.word % Removes "The " if any
2767   chop.word           % Removes "An " if any
2768   chop.word           % Removes "A " if any
2769   sortify
2770   #1 global.max$ substring$
2771 }
2772

author.sort
2773 %% =====
2774 %% This version from old gost package.
2775 %
2776 {*!natbib}
2777 FUNCTION {author.sort}
2778 { author empty$ key empty$ "to sort, need author or key in " cite$ * warning$ ""
2779   { "    "
2780   { key sortify }
2781   if$ }
2782   }
2783   { key sortify }
2784   if$ }
2785   }
2786   {

```

```

2787     author num.names$ #4 <
2788         {author sort.format.names }
2789         {title sort.format.title}
2790     if$
2791   }
2792   if$
2793 }
2794 </!natbib>
2795 %% This version from plainnat.bst
2796 <*natbib>
2797 FUNCTION {author.sort}
2798 { author empty$ 
2799   { key empty$ 
2800     { "to sort, need author or key in " cite$ * warning$ 
2801       ""
2802     }
2803     { key sortify }
2804   if$
2805 }
2806   { author sort.format.names }
2807   if$
2808 }
2809 </natbib>
2810 %% =====
2811

author.title.sort
2812 <!*natbib | natbib>
2813 FUNCTION {author.title.sort}
2814 { author empty$ 
2815   { title empty$ 
2816     { key empty$ 
2817       { "to sort, need author, title, or key in " cite$ * warning$ 
2818         ""
2819       }
2820       { key sortify }
2821     if$
2822   }
2823   { title sort.format.title }
2824   if$
2825 }
2826 {
2827   author num.names$ #4 <
2828     {author sort.format.names }
2829     {title sort.format.title}
2830   if$
2831 }
2832   if$
2833 }
2834 </!natbib | natbib>
2835 <*natbib | natbib>

```

```

2836 FUNCTION {author.editor.sort}
2837 { author empty$ 
2838   { editor empty$ 
2839     { key empty$ 
2840       { "to sort, need author, editor, or key in " cite$ * warning$ 
2841         "" 
2842       } 
2843       { key sortify } 
2844       if$ 
2845     } 
2846     { editor sort.format.names } 
2847   if$ 
2848 } 
2849   { author sort.format.names } 
2850   if$ 
2851 } 
2852 
2853 FUNCTION {author.organization.sort}
2854 { author empty$ 
2855   { organization empty$ 
2856     { key empty$ 
2857       { "to sort, need author, organization, or key in " cite$ * warning$ 
2858         "" 
2859       } 
2860       { key sortify } 
2861       if$ 
2862     } 
2863     { "The " #4 organization chop.word sortify } 
2864   if$ 
2865 } 
2866   { author sort.format.names } 
2867   if$ 
2868 } 
2869 
2870 FUNCTION {editor.organization.sort}
2871 { editor empty$ 
2872   { organization empty$ 
2873     { key empty$ 
2874       { "to sort, need editor, organization, or key in " cite$ * warning$ 
2875         "" 
2876       } 
2877       { key sortify } 
2878       if$ 
2879     } 
2880     { "The " #4 organization chop.word sortify } 
2881   if$ 
2882 } 
2883   { editor sort.format.names } 
2884   if$ 
2885 }

```

```

2886 </natbib | natbib>
2887
2888
presort Function to compute sort.key$. What is the space string "uuu" for?
2889 <!*natbib>
2890 FUNCTION {presort}##1
2891 {
2892   author.title.sort
2893   " "
2894   *
2895   year field.or.null sortify
2896   *
2897   " "
2898   *
2899   title field.or.null
2900   sort.format.title
2901   *
2902   #1 entry.max$ substring$
2903   'sort.key$ :=
2904 }
2905 <!/natbib>
2906 <!*natbib>
2907 FUNCTION {presort}##2
2908 { calc.label
2909   label sortify
2910   %author.title.sort
2911   " "
2912   *
2913   % ===== plainnat.bst =====
2914 % type$ "book" =
2915 % type$ "inbook" =
2916 % or
2917 %   'author.editor.sort
2918 %   { type$ "proceedings" =
2919 %     'editor.organization.sort
2920 %     { type$ "manual" =
2921 %       'author.organization.sort
2922 %       'author.sort
2923 %       if$
2924 %     }
2925 %     if$
2926 %   }
2927 %   if$
2928   author.title.sort
2929   " "
2930   *
2931   year field.or.null sortify
2932   *
2933   " "
2934   *

```

```

2935 %cite$  

2936 title field.or.null sort.format.title  

2937 *  

2938 #1 entry.max$ substring$  

2939 'sort.label :=  

2940 sort.label *  

2941 % ======  

2942 #1 entry.max$ substring$  

2943 'sort.key$ :=  

2944 }  

2945 </natbib>  

2946 </sort>  

2947  

2948 <!*sort>  

2949 <*natbib>  

2950 INTEGERS { seq.num }  

2951  

2952 FUNCTION {init.seq}  

2953 { #0 'seq.num :=}  

2954  

2955 EXECUTE {init.seq}  

2956  

2957 FUNCTION {int.to.fix}  

2958 { "00000000" swap$ int.to.str$ *  

2959 #-1 #10 substring$  

2960 }  

2961  

2962 FUNCTION {presort}#3  

2963 {  

2964 calc.label % computes label  

2965 label sortify % initiates sort.label  

2966 "  

2967 *  

2968 seq.num #1 + 'seq.num := % advance seq.num  

2969 seq.num int.to.fix % prepend seq.num with 0s  

2970 'sort.label := % set sort.label to seq.num  

2971 sort.label * % append seq.num to label  

2972 #1 entry.max$ substring$ % cut if too long  

2973 'sort.key$ := % set sort.key$  

2974 }  

2975 </natbib>  

2976 </!sort>  

2977  

2978 <*sort | natbib>  

2979 ITERATE {presort}  

2980  

2981 SORT  

2982  

2983 </sort | natbib>  

2984

```

2.11 Bibliography list

We need to find longest label to put in into the argument of the `thebibliography` environment. In case of `natbib` options we also need to compute extra suffix for the `year` field if there two or more entries for given label (=author/editor/organization) in that year.

Declare global (external) strings used in calculation of the longest label.

```
2985 <!natbib>STRINGS { longest.label }
2986 <natbib>STRINGS { longest.label last.label next.extra }
2987
2988 <!natbib>INTEGERS { number.label longest.label.width }
2989 <natbib>INTEGERS { number.label longest.label.width last.extra.num }
2990
ize.longest.label      Initialize those string.
2991 <!*natbib>
2992 FUNCTION {initialize.longest.label}
2993 { "" 'longest.label :=
2994   #1 'number.label :=
2995   #0 'longest.label.width :=
2996 }
2997 </!natbib>
2998 <*natbib>
2999 FUNCTION {initialize.longest.label}
3000 { "" 'longest.label :=
3001   #0 int.to.chr$ 'last.label :=
3002   "" 'next.extra :=
3003   #0 'longest.label.width :=
3004   #0 'last.extra.num :=
3005   #0 'number.label :=
3006 }
3007 </natbib>
3008
3009 EXECUTE {initialize.longest.label}
3010
ize.longest.label      Iterate though the list of entries to compute label.
3011 <!*natbib>
3012 FUNCTION {forward.pass}
3013 { number.label int.to.str$ 'label :=
3014   number.label #1 + 'number.label :=
3015   label width$ longest.label.width >
3016   { label 'longest.label :=
3017     label width$ 'longest.label.width :=
3018   }
3019   'skip$
3020   if$
3021 }
3022 </!natbib>
3023 <*natbib>
3024 FUNCTION {forward.pass}
3025 { last.label label =
```

```

3026 { last.extra.num #1 + 'last.extra.num :=
3027     last.extra.num int.to.chr$ 'extra.label :=
3028 }
3029 { "a" chr.to.int$ 'last.extra.num :=
3030     "" 'extra.label :=
3031     label 'last.label :=
3032 }
3033 if$
3034 number.label #1 + 'number.label :=
3035 }
3036 </natbib>
3037
3038 ITERATE {forward.pass}
3039

```

reverse.pass Natbib styles require reverse iteration over all entries.

```

3040 <*natbib>
3041 FUNCTION {reverse.pass}
3042 { next.extra "b" =
3043     { "a" 'extra.label := }
3044     'skip$
3045 if$
3046 extra.label 'next.extra :=
3047 extra.label
3048 duplicate$ empty$ 
3049     'skip$
3050     { "\natexlabel{" swap$ * "}" * }
3051 if$
3052 'extra.label :=
3053 label extra.label * 'label :=
3054 }
3055
3056 REVERSE {reverse.pass}
3057
3058 FUNCTION {bib.sort.order}
3059 { sort.label 'sort.key$ :=
3060 }
3061
3062 ITERATE {bib.sort.order}
3063
3064 SORT
3065 </natbib>
3066

```

begin.bib Within `thebibliography` environment we define few formatting macros for user to customize how the reference list is formatted.

```

3067 FUNCTION {begin.bib}
3068 { "\begin{thebibliography}{" longest.label * "}" * write$ newline$
3069     "\def\selectlanguageifdefined#1{" write$ newline$
3070     "\expandafter\ifx\csname date#1\endcsname\relax" write$ newline$
3071     \% "\else\language\csname l@#1\endcsname\fi" write$ newline$

```

```

3072  "\else\selectlanguage{\#1}\fi}"                      write$ newline$
3073  "\providecommand*\{\\href}[2]{{\\small #2}}}"          write$ newline$
3074  "\providecommand*\{\\url}[1]{{\\small #1}}}"           write$ newline$
3075  "\providecommand*\{\\BibUrl}[1]{\\url{\#1}}}"         write$ newline$
3076  "\providecommand*\{\\BibAnnote}[1]{}"                  write$ newline$
3077  "\providecommand*\{\\BibEmph}[1]{\#1}"                 write$ newline$
3078 {*modern}
3079  "\\ProvideTextCommandDefault{\\cyrdash}{\\hbox to .8em{--\\hss--}}" write$ newline$
3080  "\\providecommand*\{\\BibDash}{\\ifdim\\lastskip>0pt\\unskip\\nobreak\\hskip.2em\\fi}" write$ newline$
3081  "\\cyrdash\\hskip.2em\\ignorespaces}" write$ newline$
3082 {/modern}
3083 <natbib>   "\\providecommand*\{\\natexlab}[1]{\\#1}" write$ newline$
3084  preamble$ empty$                                write$ newline$
3085  'skip$                                         write$ newline$
3086  { preamble$ write$ newline$ }                   write$ newline$
3087  if$                                           write$ newline$
3088 }
3089
3090
3091 EXECUTE {begin.bib}
3092
3093 EXECUTE {init.state.consts}
3094
3095 ITERATE {call.type$}
3096

end.bib
3097 FUNCTION {end.bib}
3098 { newline$
3099 %  "\\catcode`\\/=11"           write$ newline$
3100  "\\end{thebibliography}" write$ newline$
3101 }
3102
3103 EXECUTE {end.bib}
3104
3105 {/bst}

That's all, Folks!

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Change History

v0.8	v1.0
General: \BibAnnote added	1 General: Bug fix (long annotate)
\BibEmph added	1 v1.1
\BibUrl added	1 General: Added German, French, Italian
Entry ANNOTE added	1 languages
v0.9	1 Entry ONLINE
General: Bug fix in INPROCEEDINGS ...	1 Gost705.dtx borrowed from Disser pkg ...
Bug fix in names and date formatting ...	1 Upload to CTAN

v1.2			
General: Entries eprint, eprintclass, eprinttype	1	Refactoring, Documentation	1
Fix bbl.urldate for ukrainian (Andrey Shvajkoy)	1	Strict option	1
Medium field	1	Support for natbib package	1
Options modern, long, eprint	1	Thesis entry, report entry	1
		v1.2a	
		General: Default for \cyrdash added	1

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Numbers written in dark blue refer to the page where the corresponding entry is described; numbers in black roman refer to the code lines where the entry is used.

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