

Short user's guide to the AMSBIB package

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Abstract. The document describes the AMSBIB software package for \LaTeX designed to simplify the input of the bibliography to papers which are being prepared for submission to Russian mathematics journals. The AMSBIB package was developed at the Steklov Mathematical Institute of the Russian Academy of Sciences and is used to typeset the bibliography to mathematical publications. The package provides separate commands for the journal name, authors, publication year, volume, issue, pages and other elements of the reference, and makes it possible to cite several publications under a single reference number. The use of the package helps one to avoid the manual markup of the list of references, enables the creation of bibliography in PDF/HTML/XML formats, and provides for automatic linking to such bibliographic resources as Crossref, MathSciNet, zbMATH, Web of Science, ADS NASA.

The most important commands of the package appeared originally in \AMS-TeX , written by Michael Spivak for the American Mathematical Society. The AMSBIB package for $\text{\LaTeX} 2_{\epsilon}$ contains an extended set of commands to work with the bibliography, which is adopted for the needs of the Russian mathematics journals.

To switch on the package one uses the standard command `\usepackage` in the $\text{\LaTeX} 2_{\epsilon}$ file: `\usepackage[hyper]{amsbib}`.

The “hyper” option allows to create internal and external hyperlinks in the final document (PDF file). The list of references is environed by the standard \LaTeX commands `\begin{thebibliography}{99}`, and `\end{thebibliography}`. The argument “99” means that the widest label produced by the `\bibitem` command contains 2 digits.

Since papers in Russian journals can cite publications both in Cyrillic and in Latin, proper font settings must be used for these texts. The language is specified in the very beginning of the reference. Every item begins with the command `\RBibitem{tag}` for a Cyrillic reference or `\Bibitem{tag}` for Latin one. Citing from the body of the document is done by the standard \LaTeX command `\cite{tag}`.

Aa bibliography item in a Russian mathematics journal can include several references. References to the original and translated versions of the same paper as well as references to preprints and related papers are often merged into one bibliography item. To merge together several references the commands `\moreref` for Russian references (written in Cyrillic) and `\moreref` for English ones (written in Latin) are used. They divide blocks of commands describing bibliographic

details. To refer to a translation of an original Russian paper it is necessary to use the commands `\transl` and `\rtransl`. The number of blocks included in a single item and separated by the commands `\moreref`, `\morerref`, `\transl` and `\rtransl` is not limited.

One block consists of commands describing bibliographic data. The list of available commands is given in Table 1. To specify the type of a publication the optional command `\ptype` is used. If it is omitted, the type is determined automatically by the combination of other commands.

Here is an example of a reference in AMSBIB format containing links to the Russian (in Cyrillic) and English versions of the paper:

```
\RBibitem{ZhiIza09}
\by A.\,Б.~Жижченко, A.\,Д.~Изаак
\paper Информационная система Math-Net.Ru.
    Современное состояние и перспективы развития.
    Импакт-факторы российских математических журналов
\jour УМН
\yr 2009
\vol 64
\issue 4(388)
\pages 195--204
\mathnet{http://mi.mathnet.ru/umn9312}
\crossref{http://dx.doi.org/10.4213/rm9312}
\mathscinet{http://www.ams.org/mathscinet-getitem?mr=2583580}
\zbmath{http://zbmath.org/?q=an:05665297}
\transl
\by A.\,Б.~Zhizhchenko, A.\,D.~Izaak
\paper The information system Math-Net.Ru. Current state and
    prospects. The impact factors of Russian mathematics journals.
\jour Russian Math. Surveys
\yr 2009
\vol 64
\issue 4
\pages 775--784
\crossref{http://dx.doi.org/10.1070/RM2009v064n04ABEH004638}
\isi{http://gateway.isiknowledge.com/gateway/Gateway.cgi?
    GWVersion=2&SrcApp=PARTNER\APP&SrcAuth=LinksAMR&DestLinkType=
    FullRecord&DestApp=ALL\WOS&KeyUT=000275492400011}
\adsnasa{http://adsabs.harvard.edu/cgi-bin/bib/query?
    2009RuMaS..64..775Z}
```

A set of commands enabling one to create direct hyperlinks to international bibliographic resources is also included in the package; the list of the commands is given in Table 2.

Hyperlinks can be added to every block within the item. This is an important option in the case when the commands `\moreref`, `\morerref`, `\transl` or `\rtransl` are used.

Table 1. Commands of AMSBIB package

<code>\by</code>	Authors
<code>\eds</code>	Editors
<code>\jour</code>	Journal Title abbreviation
<code>\journalname</code>	Full journal title
<code>\book</code>	Book Title
<code>\inbook</code>	Title of a collection of papers
<code>\bookinfo</code>	Information about the book
<code>\proc</code>	Conference name
<code>\procinfo</code>	Additional information about the proceedings of a conference
<code>\eprint</code>	Title of the electronic publication, which is only available online
<code>\eprintinfo</code>	Information about the electronic publication
<code>\paper</code>	Article title
<code>\paperinfo</code>	Additional information about the article
<code>\preprint</code>	Preprint title
<code>\preprintinfo</code>	Additional information about the preprint
<code>\serial</code>	Serial title
<code>\thesis</code>	Title of the thesis
<code>\thesisinfo</code>	Additional information about the thesis
<code>\yr</code>	Year of the publication
<code>\vol</code>	Volume number
<code>\voldtitle</code>	Book volume title
<code>\volinfo</code>	Additional information about the volume
<code>\issue</code>	Issue number
<code>\issueinfo</code>	Additional information about the issue
<code>\papernumber</code>	Article ID for electronic journals
<code>\pages</code>	Page numbers
<code>\totalpages</code>	Total number of pages
<code>\publ</code>	Publisher or institution which published the work
<code>\publaddr</code>	Publishers Address (City)
<code>\toappear</code>	Indicates that the paper is to be published yet
<code>\edition</code>	Edition number
<code>\miscnote</code>	Additional information about the publication
<code>\finalinfo</code>	Additional information about the publication
<code>\arxiv</code>	Arxiv Paper code
<code>\elink</code>	Hyperlink to an URL
<code>\mathnet</code>	Math-Net.Ru index
<code>\crossref</code>	Digital Object Identifier (DOI)
<code>\mathscinet</code>	MathSciNet – Mathematical Reviews number
<code>\zmath</code>	Index of zbMATH identifier
<code>\adsnasa</code>	The SAO/NASA Astrophysics Data System – Bibliographic Code
<code>\isi</code>	ISI Web of Science – Unique-ID
<code>\scopus</code>	Scopus paper identifier
<code>\youtube</code>	Youtube video code

Table 2. Commands for hyperlinks to online bibliographic systems

<code>\crossref{...}</code>	DOI (Digital Object Identifier)
<code>\mathnet{...}</code>	Math-Net.Ru (Russian mathematical portal)
<code>\mathscinet{...}</code>	MathSciNet (Mathematical Reviews of the American Mathematical Society)
<code>\zmath{...}</code>	zbMATH (Zentralblatt MATH abstracting and reviewing system)
<code>\adsnasa{...}</code>	ADS NASA (Astrophysics Data System)
<code>\isi{...}</code>	Web of Science by Thompson Reuters
<code>\arxiv</code>	arXiv.org