ATLAS NOTE

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Quick guide to ATLAS BibTeX style

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Abstract

This document illustrates how to use BibTeX for the bibliography of your ATLAS paper. Two BibTeX(`.bst`) style files have been created that can be used with any of the ATLAS supported journals, depending on whether they require the title of the references to be included or not.

This document was generated using version 00-99-00 of the ATLAS LaTeX package.

1 Instructions

The ATLAS Collaboration has specific guidelines as to what constitutes a good bibliographic style. For example, a reference to a paper by an LHC Collaboration must not include the first author whereas if the paper is by any other collaboration, it should. Also, where available, links to the `arXiv` entries of the papers must be included. To help authors with their paper preparations, a standard ATLAS bibliographic style has been developed which incorporates all of these requirements, and, at the same time, is compatible with those of the journals the papers are being submitted to.

The format of the references in your ATLAS paper depends on the journal to which you are submitting, but in general we can classify the journal styles in two categories: those which require the title of the references and those which do not. To ensure the homogeneity in all ATLAS publications, BibTeXstyle files are provided for each of these categories along with an example file that illustrates how different types of bibliographic material should be referenced. Authors must choose between these two style files, depending on the journal to which they wish to submit their paper.

Important: Please use these files and base your `.bib` file on the example provided, as it has the references in the style preferred by the ATLAS Publications Committee. This will definitely save time in the reviewing process!

These style files have been successfully tested in the framework provided by each of the journals listed in the following sections and with the standard ATLAS document template.

A new implementation of BibTeX is provided by the `biblatex` [1] package. It is planned to move all ATLAS documents to the use of this package. One major advantage of the package is that it defines quite a few more entry types that are much more suitable for online documents and things like CONF and PUB notes. It is also possible to use UTF-8 encoding in the entries, which means that letters such as ä, é, ß can be included directly in the text. Adjustment of the style is also much simpler. It is possible to take a base style and then just apply changes to it rather than having to learn the details of how `bst` files are constructed.

Note that such adjustments still have to be made to the style used in the current documentation.

You compile a document using BibTeX using the commands:

PDFLaTeX + BibTeX + PDFLaTeX + PDFLaTeX

For `biblatex` and `biber` use:

PDFLaTeX + BibTeX + PDFLaTeX + PDFLaTeX

You can of course use LaTeX rather than PDFLaTeX, but PDFLaTeX is preferred, as things like clicking on cross-references and links to publications in the bibliography works much more reliably with PDFLaTeX.

2 Journals that include the title in the reference

Journals:

- **JHEP**

- **JINST**

- **NJP**

BibTeX style file:
   atlasBibStyleWithTitle.bst

BibTeX example bibliography file:
  atlasBibStyleExample.bib
Include at the end of your **.tex** file the following lines:
```
\bibliographystyle{atlasBibStyleWithTitle}
\bibliography{atlas-bibtex}
```
To compile:
  LaTeX + BibTeX + LaTeX + LaTeX

3   Journals that do not include the title in the reference

Journals:
  EPJC
  NPB
  PLB
  PRD
  PRL
BibTeX style file:
  atlasBibStyleWoTitle.bst
BibTeX example bibliography file:
  atlasBibStyleExample.bib
Include at the end of your **.tex** file the following lines:
```
\bibliographystyle{atlasBibStyleWoTitle}    \bibliography{atlas-bibtex}
```

4   ATLAS Notes

For ATLAS Notes, the recommended style file is:
  atlasBibStyleWoTitle.bst.

5   BibTEXtips

- A bibliographic item is created in the *.bib* file as:
  ```
  @Article{lhcCollaboration:2012
  % bibliographic information
  ```
  The identifier directly after the document type declaration is how we are going to refer to this item inside the main .tex file: `An LHC Collaboration published a paper\cite{lhcCollaboration:2012} with very interesting result.`

- When referencing ATLAS CONF notes, the url to the CDS page should be included. For this to work, in the preamble of your *tex* document add:
  ```
  \usepackage{hyperref}
  ```

- If the DOI is filled and the `hyperref` package loaded, the title of the journal will be highlighted in blue and become a hyperlink to the online paper.

- If you use BibTEX and want to cite multiple references in the format [A-Z], include the following package in the header of your document:

`\usepackage{cite}`. If you use `biblatex` the option `style=numeric-comp` does this for you.

- When referencing papers from journals like PRD, PLB, etc., one has to be careful not to include the "D" or "B" as part of the volume but rather in the journal name. Macros have been added to the **.bst** style files for these journals. Please use these.

6 Examples

- LHC Collaboration [2]

- Other Collaboration [3]

- Individual authors [4]

- arXiv only [5]

- arXiv only submitted to a journal [6]

- ATLAS CONF Note [7]

While the `collaboration` field is a nice idea, it is not supported by many BibTEX styles. Hence in [2], `collaboration` has been renamed to `author` and the `author` field has been renamed as `xauthor`. If you use `collaboration` and omit `author` you will get a warning when you run `bibtex`. This you see in [7].

Note that in Ref. [7] the entry type `@Article` is used and the field `journal` is abused for the conference note number. This is a result of the BibTEXresrictions on the entry types. `biblatex` provides a lot more entry types. It is planned to move to `biblatex` or the ATLAS templates in the course of 2014.

History

2013-08-13: Cristina Oropeza Barrera First version of the document released.

2014-08-14: Ian Brock Updated the example references a bit and gave a bit more background information.

References

[1] *biblatex – Bibliographies in LATEX using BibTEX for sorting only*.
URL: http://www.ctan.org/pkg/biblatex.

[2] ATLAS Collaboration. "Searches for supersymmetry with the ATLAS detector using final states with two leptons and missing transverse momentum in $\sqrt{s} = 7$ TeV proton-proton collisions". In: 709 (2012), p. 137. DOI: 10.1016/j.physletb.2012.01.076. arXiv: 1110.6189 [hep-ex].

[3] B. Alver et al. "Cluster properties from two-particle angular correlations in pp collisions at $\sqrt{s} = 200$ GeV and 410 GeV". In: 75 (2007), p. 054913. DOI: 10.1103/PhysRevC.75.054913. arXiv: 0704.0966 [hep-ex].

[4] A. Sherstnev and R. S. Thorne. "Parton distributions for LO generators". In: 55 (2008), p. 553. DOI: 10.1140/epjc/s10052-008-0610-x. arXiv: 0711.2473 [hep-ph].

[5] P. Z. Skands. *The Perugia tunes*. arXiv: 0905.3418 [hep-ph].

[6] J. Monk and C. Oropeza-Barrera. "The HBOM method for unfolding detector effects". In: *submitted to Nucl. Instrum. Meth.* (2011). arXiv: 1111.4869 [hep-ex].

[7] ATLAS Collaboration. "Search for gluino-mediated scalar top and bottom quark production in final states with missing transverse energy and at least three b-jets with the ATLAS detector". In: (). URL: http://cdsweb.cern.ch/record/1453786.