The iopart-num BibTeX style

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1. Introduction

The `iopart-num` BibTeX style is intended for use in preparing manuscripts for Institute of Physics Publishing journals, including Journal of Physics. It provides numeric citation with Harvard-like formatting, based upon the specification in "How to prepare and submit an article for publication in an IOP journal using LaTeX 2_ε" by Graham Douglas (2005).

The `iopart-num` package is available on the Comprehensive TeX Archive Network (CTAN) as `/biblio/bibtex/contrib/iopart-num`.

2. General instructions

To use the `iopart-num` style, include the command `\bibliographystyle{iopart-num}` in the document preamble. The reference section is then inserted into the document with the command `\bibliography{...}`, where the names of the necessary BibTeX database files should be listed between the braces. Further general instructions on using BibTeX may be found in the BibTeX documentation.

The `iopart-num` style is compatible with, but does not require, the `iopart` document class. It is also compatible with, but does not require, the `natbib` package. For documents prepared using the `iopart` class but *without* `natbib`, the section header for the references must be manually inserted, with the command `\section*{References}`, and use of the `citesort` package is recommended for proper formatting of the references in the text. For documents prepared *with* `natbib`, the section header for the references appears automatically, and use of the `citesort` package is not necessary. The `natbib` package should be loaded with the options `square` and `sort&compress` to insure proper formatting of the references in the text, *i.e.*, with `\usepackage[square,sort&compress]{natbib}`.

3. Special bibliographic data fields

Under IOP style conventions, journal names should be set in italic type. However, for journals with multiple lettered sections, the IOP convention is that the journal section letter should appear in roman type after the main journal name, *e.g.*, "*J. Phys.* A". Most existing BibTEX styles do not make special provision for lettered sections. Therefore, typically, the section letter is either included as part of the journal name

```
journal = "J. Phys. A",
volume = "38",
```

or as part of the volume number

```
journal = "J. Phys.",
volume = "A38",
```

in the BibTEX database entry. The `iopart-num` style instead introduces a new optional field `section` which can be used to specify a journal section letter. This section letter is set in roman type. Moreover, if the section letter already appears in *any* of the usual locations in the database entry (at the end of the journal name, before the volume number, or after the volume number), `iopart-num` will recognize it and suppress its printing. Therefore, when you are creating the BibTEX database entry for an article in a lettered journal section, you can still include the section letter in the `journal` or `volume` fields, for use with other BibTEX styles, without adversely affecting the formatting for IOP journals. For example, the entry for ref. [10] can be generated with

```
journal = "J. Phys. A",
section = "A",
volume = "38",
```

or

```
journal = "J. Phys.",
section = "A",
volume = "A38",
```

or simply

```
journal = "J. Phys.",
section = "A",
volume = "38",
```

in the BibTEX database entry. Note that section names longer than a single letter are also supported (*e.g.*, "*Phys. Rev.* ST Accel. Beams").

Journal issue numbers are not customarily included in references to journal articles under the IOP formatting conventions. Therefore, the `iopart-num` style ignores the `number` field for articles. However, in some periodicals (such as popular magazines or certain journal online supplements), pagination restarts from 1 with each issue. For such periodicals, the issue number is an essential part of the bibliographic information needed

to identify an article. The `iopart-num` style therefore supports an additional field `issue` in the BibTEX database entry, which can be used to enforce printing of the issue number. If a value is specified for `issue`, this value is included included parenthetically after the volume number in the reference, as in ref. [11].

The `iopart-num` style supports several additional data fields (`collaboration`, `eid`, `eprint`, `numpages`, and `url`) introduced in REVTEX 4.

4. Examples

The entries in the reference list below provide examples of the formatting of various types of references, of varying complexity, including journal articles, books (individual, multivolume, or in a series), articles in books, theses, and unpublished references. The BibTEX database entries used to generate these examples can be found in the file `iopart-num.bib`. Refs. [1–8] are based upon example entries from the IOP guidelines.

References

[1] Cisneros A 1971 *Astrophys. Space Sci.* **10** 87
[2] Carlip S and Vera R 1998 *Phys. Rev.* D **58** 011345
[3] Davies K and Brown G 1997 *J. High Energy Phys.* JHEP12(1997)002
[4] Neilson D and Choptuik M 2000 *Class. Quantum Grav.* **17** 761 (*Preprint* `gr-qc/9812053`)
[5] Harrison M 1999 Dipheomorphism-invariant manifolds (*Preprint* `hep-th/9909196`)
[6] Dorman L I 1975 *Variations of Galactic Cosmic Rays* (Moscow: Moscow State University Press) p 103
[7] Caplar R and Kulisic P 1973 *Proc. Int. Conf. on Nuclear Physics (Munich)* vol 1 (Amsterdam: North-Holland/American Elsevier) p 517
[8] Morse M 1996 *Atomic Molecular and Optical Physics* (*Experimental Methods in the Physical Sciences* vol 29) ed Dunning F B and Hulet R (San Diego: Academic)
[9] Bardeen J, Cooper L N and Schrieffer J R 1957 *Phys. Rev.* **108** 1175
[10] Caprio M A 2005 *J. Phys.* A **38** 6385
[11] Zamfir N V *et al.* 2005 *Eur. Phys. J.* A **25**(s01) 389
[12] Rose M E 1957 *Elementary Theory of Angular Momentum* (New York: Wiley)
[13] Dirac P A M 1967 *The Principles of Quantum Mechanics* 4th ed (*The International Series of Monographs on Physics* no 27) (Oxford: Clarendon Press)
[14] Siegbahn K (ed) 1965 *Alpha-, Beta-, and Gamma-Ray Spectroscopy* vol 1 (Amsterdam: North-Holland)
[15] Bell R E 1965 *Alpha-, Beta-, and Gamma-Ray Spectroscopy* vol 2 ed Siegbahn K (Amsterdam: North-Holland) p 905
[16] Caprio M A 2003 Ph.D. thesis Yale University (*Preprint* `nucl-ex/0502004`)
[17] Doe J 2006 private communication