

The Arthur and Lancelot styles for BibTeX

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(Dated: April 21, 2025)

This is a showcase file for the BibTeX style files `arthur.bst` and `lancelot.bst`.

The BibTeX style files `arthur.bst` and `lancelot.bst` are optimized for physics (more specifically atomic, molecular and optical physics). `arthur.bst` was generated from the `makebst` utility, and then modified by hand to give it DOI linking capabilities comparable to those used in production by modern physics journal. `lancelot.bst` is a hand-modified version of `apsrev4-2.bst`.

Both style files admit arbitrary eprint capability for indicating the URL and identifier of the eprint,

```
eprint = {https://arxiv.org/abs/yymm.nnnn},  
archive = {arXiv:yymm.nnnn},
```

whether that be on arXiv or somewhere else, and they both have a dedicated `preprint` entry type:

```
@preprint{arxivPreprint,  
  author = {Ann Author},  
  title = {A preprint still under review},  
  year = {2020},  
  eprint = {https://arxiv.org/abs/yymm.nnnn},  
  archive = {arXiv:yymm.nnnn},  
}
```

The presend document exists to showcase how the style files behaves when typesetting a variety of references, including journal articles [1,2], preprints [3], books [4],

theses [5], code [6], and collections [7]. This repository also contains two shorter versions of the style file, `arthurShort.bst` and `arthurUltraShort.bst`, which produce minified entries.

The name ‘arthur’ derives from the name of the ‘master’ style form the `makebst` utility, `merlin.bst`, in the understanding that `arthur` is still learning from `merlin`. The name ‘lancelot’ was made to give ‘arthur’ a friend.

On the whole, I am extremely happy with both this style files. The original, `arthur`, have a minor ‘tick’, in that it tends to hyperlink the period between a paper’s title and its journal reference; this is a side effect of the DOI linker which I was unable to iron out. If this is found undesirable, it can be fixed using a simple Perl script; a sample ‘prettifier’ shell file is provided.

The newer file, `lancelot`, does not suffer from this, and it is the one I (currently) prefer.

For some historical context, I prepared the style file `arthur` around 2015, before version 4.2 of the `revtex` package became widespread. The updated version of `revtex` does provide APS style files which include proper DOI hyperlinking, with the clearest contender being `apsrev4-2.bst`, and those may be found preferable depending on individual tastes; copies are easily found online, and they are natively available to `revtex4-2` documents. A copy of `apsrev4-2.bst` is included in this repository (under its LPPL license) for ease of comparison. The newer homebrew, `lancelot.bst`, is a modification of the new-standard `revtex` to streamline the handling of preprints and arXiv (or other) eprint links.

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- [1] J. Doe and J. Doe, Sample journal article with arXiv eprint, *J. Acad. Res. Inv.* **1** no. 2, pp. 34–56 (1900), arXiv: 1234.5678.
 - [2] J. Doe and J. Doe, Example journal article, *J. Acad. Res. Inv.* **2** no. 3, p. 45 (2000), [Author eprint](#).
 - [3] A. Author. A preprint still under review. [arXiv:2020.0202](#) (2020).
 - [4] B. Writer, *Books are longer than articles* (Random publisher, City of publication, 2000).
 - [5] J. Doe, *Theses take a long time to write*, [PhD thesis](#), For-

est University (2020).

- [6] E. Pisanty, The Author ORCID package, GitHub, [github.com/episanty/authororcid](#) (2020).
- [7] A. Author and C. Collaborator, This chapter is in a book which is in a series, in *Fancy Book: collecting different chapters*, A Series of Books on Serious Stuff, edited by E. Editor and C. Copyeditor (Random Publisher, Somewhere, 2000) pp. 123–456, [arXiv:yymm.nnnn](#).

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