
A Short Guide How To Write Your Bibliography

Arno Solin
May 24, 2021

General Comments

- Most important rule: The list of references/bibliography should be explicit-enough so that you can find the source in a library. This means that you typically need to tell who the publisher is, in what series/journal the paper was published in, the volumen/number/issue, and the page numbers. Having the title and the authors included is of course important as well.
- Second most important rule: **Be consistent**. Aim to include the same information for every journal paper, for every conference paper, and so forth.
- Related to above: Either choose to include DOIs or leave them out. In ML, many of the open access journals do not pay for DOIs and thus they are not available. Thus Arno often chooses to leave them out for all papers.
- Related to above: Either choose to include ISBN/ISSN numbers or leave them out for all. Arno typically leaves them out.
- Related to above: Choose whether to include editor and address (where the conference took place) fields. Arno typically takes the shortcut to remove these.
- Rule of thumb: Typically if the field is typeset in italics/emphasized text, you should write the bib filed with ‘Title Case Like This’ (title in books, booktitle in inproceedings, *etc.*) and if the text is typeset without italics, you should use just plain ‘Sentence case’.
- Force names to Initial Caps and abbreviations to ALL CAPS in the bib (*e.g.*, ‘the {G}aussian distribution’ or ‘the {F00} method’).
- Finally, the bibstyle (in this document it is ‘abbrvnat’) you choose (or which is typically specific to the conference template or journal) should decide how the information appears in the bibliography (and whether some fields are omitted). Thus you should try to write a bib file which is as complete with information as possible. For example, do not abbreviate first names in the bib file. If they are abbreviated, the bib style should take care of that.

Some Machine Learning Specific Minor Details

- ‘NeurIPS’ was known as ‘NIPS’ until 2018.
- There have been various publishers taking care of publishing the NeurIPS proceedings: Morgan Kaufmann, MIT Press, Curran Associates, Inc.
- ICLR papers do not have pages numbers, nor a publisher (weird).
- Always prefer to cite the *published* (*i.e.*, peer-reviewed) version of a paper rather than the arXiv version—unless the arXiv version contains some specific detail that you want to refer to (point that out when citing the paper).
- The series ‘Proceedings of Machine Learning Research’ (PMLR) was previously known as ‘JMLR Workshop and Conference Proceedings’ (JMLR W&CP).
- An easy way to find the bib details for NeurIPS papers is through the official web site (you still need to clean-up the bib):
<https://papers.nips.cc/>

- An easy way to find the bib details for ICML/AISTATS/UAI papers is through the official web site (you still need to clean-up the bib)
<http://proceedings.mlr.press/>
- Very rough bib files for other papers can be obtained using Google Scholar, but you *must* clean these and triple-check that they are not nonsense:
<https://scholar.google.fi/>

I am including an example bib file (in the appendix) and the output for it below. Here the output is formatted by the ‘abbrvnat’ bib style.

References

- [1] D. Duvenaud. The kernel cookbook: Advice on covariance functions, 2021. URL <https://www.cs.toronto.edu/~duvenaud/cookbook/>. Online; accessed May 24, 2021.
- [2] R. Mur-Artal and J. D. Tardós. Visual-inertial monocular SLAM with map reuse. *IEEE Robotics and Automation Letters*, 2(2):796–803, 2017.
- [3] H. Nickisch, A. Solin, and A. Grigorevskiy. State space Gaussian processes with non-Gaussian likelihood. In *Proceedings of the 35th International Conference on Machine Learning (ICML)*, volume 80 of *Proceedings of Machine Learning Research*, pages 3789–3798. PMLR, 2018.
- [4] J. Quiñonero-Candela and C. E. Rasmussen. A unifying view of sparse approximate Gaussian process regression. *Journal of Machine Learning Research*, 6:1939–1959, 2005.
- [5] C. E. Rasmussen and C. K. Williams. *Gaussian Processes for Machine Learning*. MIT Press, Cambridge, MA, 2006.
- [6] A. Solin and S. Särkkä. Explicit link between periodic covariance functions and state space models. In *Proceedings of the Seventeenth International Conference on Artificial Intelligence and Statistics (AISTATS)*, volume 33 of *Proceedings of Machine Learning Research*, pages 904–912. PMLR, 2014.
- [7] A. Solin and S. Särkkä. Hilbert space methods for reduced-rank Gaussian process regression. *ArXiv preprint arXiv:1401.5508*, 2014.
- [8] A. Solin and S. Särkkä. Hilbert space methods for reduced-rank Gaussian process regression. *Statistics and Computing*, 30(2):419–446, 2020.
- [9] S. Sun, G. Zhang, J. Shi, and R. Grosse. Functional variational Bayesian neural networks. In *International Conference on Learning Representations (ICLR)*, 2019.
- [10] C. K. Williams and M. Seeger. Using the Nyström method to speed up kernel machines. In *Advances in Neural Information Processing Systems 13 (NIPS)*, pages 682–688. MIT Press, 2001.

A What does the ‘bibliography.bib’ file look like?

The ‘bibliography.bib’ file that was used in this doc.

Use BOOK for books

```
@book{rasmussen2006gaussian,
  title = {Gaussian Processes for Machine Learning},
  author = {Rasmussen, Carl E. and Williams, Christopher K.I.},
  year = {2006},
  publisher = {MIT Press},
  address = {Cambridge, MA}
}
```

Use ARTICLE for journal papers

```
@article{solin2020hilbert,
  author = {Solín, Arno and S{"a}rkk{"a}, Simo},
  title = {Hilbert space methods for reduced-rank {G}aussian process regression},
  journal = {Statistics and Computing},
  volume = {30},
  number = {2},
  pages = {419--446},
  year = {2020},
  publisher = {Springer}
}
```

```
@article{quinonero2005unifying,
  author = {Joaquín Quiñonero-Candela and Carl Edward Rasmussen},
  title = {A unifying view of sparse approximate {G}aussian process regression},
  journal = {Journal of Machine Learning Research},
  pages = {1939--1959},
  volume = {6},
  year = {2005}
}
```

```
@article{mur2017visual,
  author = {Mur-Artal, Raúl and Tardós, Juan D},
  title = {Visual-inertial monocular {SLAM} with map reuse},
  journal = {IEEE Robotics and Automation Letters},
  pages = {796--803},
  year = {2017},
  volume = {2},
  number = {2},
  publisher = {IEEE}
}
```

Use INPROCEEDINGS for conference papers

```
@inproceedings{sun2019functional,
  title = {Functional variational {B}ayesian neural networks},
  author = {Sun, Shengyang and Zhang, Guodong and Shi, Jiaxin and Grosse, Roger},
  booktitle = {International Conference on Learning Representations (ICLR)},
  year = {2019}
}
```

```

@inproceedings{williams2001using,
  author = {Williams, Christopher KI and Seeger, Matthias},
  booktitle = {Advances in Neural Information Processing Systems 13 (NIPS)},
  pages = {682--688},
  publisher = {MIT Press},
  title = {Using the {N}ystrom method to speed up kernel machines},
  year = {2001}
}

@inproceedings{nickisch2018state,
  title = {State space {G}aussian processes with non-{G}aussian likelihood},
  author = {Nickisch, Hannes and Solin, Arno and Grigorevskiy, Alexander},
  booktitle = {Proceedings of the 35th International Conference on Machine Learning (ICML)},
  pages = {3789--3798},
  year = {2018},
  volume = {80},
  series = {Proceedings of Machine Learning Research},
  publisher = {PMLR}
}

@inproceedings{solin2014explicit,
  title = {Explicit link between periodic covariance functions and state space models},
  author = {Solin, Arno and S{"a}rkk{"a}, Simo},
  booktitle = {Proceedings of the Seventeenth International Conference on Artificial Intelligence},
  pages = {904--912},
  year = {2014},
  volume = {33},
  series = {Proceedings of Machine Learning Research},
  publisher = {PMLR}
}

```

Use MISC for data sets, web link, etc.

```

@misc{Duvenaud:cookbook,
  author = {David Duvenaud},
  title = {The Kernel Cookbook: {A}dvices on Covariance Functions},
  year = {2021},
  url = {https://www.cs.toronto.edu/~duvenaud/cookbook/},
  note = {Online; accessed May 24, 2021}
}

```

Use the following format for (unpublished) arXiv papers (misuse of the article type, but this is how Google Scholar gives the bib, which is helpful)

```

@article{solin2014hilbert,
  author = {Solin, Arno and S{"a}rkk{"a}, Simo},
  journal = {ArXiv preprint arXiv:1401.5508},
  title = {Hilbert space methods for reduced-rank {G}aussian process regression},
  year = {2014}
}

```