

# Developments in reference formatting with L<sup>A</sup>T<sub>E</sub>X

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# Propaganda

# Propaganda

- I'm from Shanghai, my name is Zhīchū Chén (Pinyin), or Chih<sup>1</sup>-Chu<sup>1</sup> Chên<sup>2</sup> (Wade-Giles), the closest IPA is:  
**/dʒɿ, trö, trən/**
- I'm currently one of the maintainers of the JACoW L<sup>A</sup>T<sub>E</sub>X template, and one of the Central Repository Database managers;
- This document is written in ConT<sub>E</sub>Xt, the sexy brother of L<sup>A</sup>T<sub>E</sub>X, the source file can be downloaded from ⇒ 



# References in L<sup>A</sup>T<sub>E</sub>X

# thebibliography environment

```
% 1-9 \bibitem's  
\begin{thebibliography}{9}  
\bibitem ...  
...  
\end{thebibliography}
```

```
% 10--99 \bibitem's  
\begin{thebibliography}{99}  
\bibitem ...  
\bibitem ...  
... % a lot more  
\end{thebibliography}
```

and more<sup>1</sup> ...

Pros:

- no extra knowledge
- direct & intuitive
- one-run compile

Cons:

- manually sort
- manually count
- tedious
- formidable to be perfect

<sup>1</sup> Although it's hard to fit more than 100 references in a 3-page decent paper.



# “Vanilla” BIB<sub>T</sub>E<sub>X</sub>

```
\bibliographystyle{IEEEtran}  
\bibliograph{\jobname}
```

with `\jobname.bib` like:

```
% \jobname.bib  
@article{baker:nature-533-452,  
  author = {Baker, M.},  
  title  = {1,500 scientists lift  
           the lid on reproducibility},  
  journal = {Nature},  
  volume = 533,  
  pages  = {452--454},  
  year   = 2016,  
  doi    = {10.1038/533452a},  
}
```

Pros:

- automatically sorted
- automatically formatted
- reusable

Cons:

- a separate file
- new syntax<sup>2</sup>
- a pre-processor

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<sup>2</sup> not as daunting as it sounds



# BIBL<sup>A</sup>T<sub>E</sub>X

```
\documentclass[biblatex]{jacobow}  
...  
  
\addbibresource{\jobname.bib}  
% maybe more \addbibresource's  
  
\begin{document}  
  
...  
  
\printbibliography  
  
\end{document}
```



The pros & cons are the same as the vanilla BIB<sub>T</sub>E<sub>X</sub>;



Except that it requires an additional package;



So, what's the point?



# Why BIB<sup>L</sup>A<sub>T</sub>E<sub>X</sub>

# What's wrong with the good old BIB<sub>T</sub>E<sub>X</sub>?

- The JACoW style does not match exactly with IEEE Transactions Series;
- Some of the references cannot fit in the general set;
- We have some courageous ideas to implement;
- immediately!

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# What could BIB<sup>L</sup>T<sub>E</sub>X offer?

- Back compatible with BIB<sub>T</sub>E<sub>X</sub>;
- Format customisable with L<sup>A</sup>T<sub>E</sub>X;
- Better unicode support;
- Remote database input with BIBER.



# Recent development of JACoW template

- Rewrite of the BIB<sup>L</sup>A<sub>T</sub>E<sub>X</sub> style;
- Those still using thebibliography:
  - There's a new macro `\doi` that takes care of the doi (new line, hyper link).

# An excursion on .bib database

- The BIBL<sup>A</sup>T<sub>E</sub>X is still W.I.P., but it won't affect how the entries need to be written.
- I'll show some typical examples,
- and some advices.

# Format of a reference entry

```
@type{label,  
  author      = {author list separated by "and"},  
  title       = "Title in sentence case",  
  other-field = ...,  
}
```

- *type* can be book, inbook, proceedings, inproceedings, article, thesis, etc.;
- *label* is used for cross reference;
- if *label* is not `\cited` in text, it won't be shown in the REFERENCES section;
- each field needs to be closed by a comma;<sup>3</sup>
- strings can be enclosed by quotations or curly braces.

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<sup>3</sup> Not necessary for the last field, but still wouldn't hurt to do so.



# How to write a hideous reference?

```
@unpublished{faus-golfe:ipac2024-tuyd1,  
  author = {A. Faus-Golfe, P. Raimondi and Z. Zhang},  
  title = {Monochromatization a new operation mode for  
    e+e- circular colliders},  
  booktitle = {Proc. IPAC'24},  
  % booktitle = {Proc. 15th International Particle Accelerator Conference},  
  paper = {TUYD1},  
  venue = {Nashville, TN},  
  intype = {presented at IPAC'24},  
  series = {IPAC'24 - 15th International Particle Accelerator Conference},  
  number = {15},  
  publisher = {JACoW Publishing, Geneva, Switzerland},  
  month = {05},  
  year = {2024},  
  issn = {2673-5490},  
  isbn = {978-3-95450-247-9},  
  url = {https://indico.jacow.org/event/63/contributions/3067},  
  note = {presented at IPAC'24, Nashville, TN, 2024, paper TUYD1,  
    unpublished},  
  language = {English}  
}
```

<https://accelconf.web.cern.ch/ipac2024/reference/tuyd1-bibtex/index.html>

# How to write a hideous reference?

```
@unpublished{palmer:ipac2024-tupc26,  
  author = {M. Palmer et al.},  
  title = {A reformulated accelerator R&D program as envisioned by  
    the 2023 Particle Physics Project Prioritization Panel},  
  booktitle = {Proc. IPAC'24},  
  % booktitle = {Proc. 15th International Particle Accelerator Conference},  
  paper = {TUPC26},  
  venue = {Nashville, TN},  
  intype = {presented at IPAC'24},  
  series = {IPAC'24 - 15th International Particle Accelerator Conference},  
  number = {15},  
  publisher = {JACoW Publishing, Geneva, Switzerland},  
  month = {05},  
  year = {2024},  
  issn = {2673-5490},  
  isbn = {978-3-95450-247-9},  
  url = {https://indico.jacow.org/event/63/contributions/3745},  
  note = {presented at IPAC'24, Nashville, TN, 2024, paper TUPC26,  
    unpublished},  
  language = {English}  
}
```



# Paper published in a proceedings

```
@inproceedings{waagaard:ipac2024-mopc08,  
  author = {E. Waagaard and others},  
  title = {Expanding the {CERN} ion injector chain capabilities:  
    new beam dynamics simulation tools for future ion species},  
  booktitle = {Proceedings of the 15th  
    International Particle Accelerator Conference},  
  booktitle+an:ISO = {"Proc. 15th Int. Part. Accel. Conf."},  
  booktitle+an:short = {"Proc. IPAC'24"},  
  pages = {51-54},  
  eid = {MOPC08},  
  venue = {Nashville, TN, USA},  
  eventdate = {2024-05-19/2024-05-24},  
  series = {IPAC'24 - 15th International Particle Accelerator Conference},  
  number = {15},  
  publisher = {JACoW Publishing, Geneva, Switzerland},  
  month = {05},  
  year = {2024},  
  issn = {2673-5490},  
  isbn = {978-3-95450-247-9},  
  doi = {10.18429/JACoW-IPAC2024-MOPC08},  
  url = {https://indico.jacow.org/event/63/contributions/3382},  
}
```



## Paper published in a proceedings

- E. Waagaard *et al.*, “Expanding the CERN ion injector chain capabilities: new beam dynamics simulation tools for future ion species”, in *Proc. IPAC’24*, Nashville, TN, USA, May 2024, pp. 51–54. [doi:10.18429/JACoW-IPAC2024-MOPC08](https://doi.org/10.18429/JACoW-IPAC2024-MOPC08)

# Work presented at an/this event

```
@unpublished{li:ipac2024-supc007,  
  author = {M. Li},  
  title = {Preliminary design consideration for  
    {CEPC} fast luminosity feedback system},  
  eventtitle = {the 15th International Particle Accelerator Conference},  
  eventtitle+an:short = {"IPAC'24"},  
  eid = {SUPC007},  
  venue = {Nashville, TN, USA},  
  eventdate = {2024-05-19/2024-05-24},  
  url = {https://indico.jacow.org/event/63/contributions/5105},  
  type = {this conference},  
}
```

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## Work presented at an/this event

- M. Li, “Preliminary design consideration for CEPC fast luminosity feedback system”, presented at IPAC’24, Nashville, TN, USA, May 2024, paper SUPC007, this conference.
- M. Li, “Preliminary design consideration for CEPC fast luminosity feedback system”, presented at IPAC’24, Nashville, TN, USA, May 2024, paper SUPC007, unpublished.

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# Paper published in a journal

```
@article{Haubner:2023:Appl-Sci:13:2765,  
  title = {Electron Beam Characterization of {REBCO}-Coated Conductors  
    at Cryogenic Conditions},  
  author = {Michal Haubner and Patrick Krkotic and Catarina Serafim  
    and Valentine Petit and Vincent Baglin and Sergio Calatroni  
    and Bernard Henrist and Artur Romanov and Teresa Puig  
    and Joffre Gutierrez},  
  journal = {Applied Sciences},  
  shortjournal = {Appl. Sci.},  
  volume = 13,  
  issue = 5,  
  pages = {2765},  
  year = 2023,  
  eprinttype = {arXiv},  
  eprint = {2410.00770},  
  eprintclass = {physics.acc-ph},  
  doi = {10.3390/app13052765},  
}
```

# Paper published in a journal

- M. Haubner *et al.*, “Electron Beam Characterization of RE-BCO-Coated Conductors at Cryogenic Conditions”, *Appl. Sci.*, vol. 13, no. 5, p. 2765, 2023.

**[doi:10.3390/app13052765](https://doi.org/10.3390/app13052765)**

# Thesis

```
@phdthesis{Garcia-Failde:2020:thesis,  
  title = {On discrete surfaces},  
  subtitle = {Enumerative geometry, matrix models and universality classes  
    via topological recursion},  
  author = {Elba Garcia-Failde},  
  institute = {Rheinische Friedrich-Wilhelms-Universität Bonn},  
  address = {Bonn, Germany},  
  year = 2020,  
  eprinttype = {arXiv},  
  eprint = {2002.00316},  
  eprintclass = {math-ph},  
  doi = {10.48550/arXiv.2002.00316},  
}
```

# Thesis

- E. Garcia-Failde, “On discrete surfaces—Enumerative geometry, matrix models and universality classes via topological recursion”, Ph.D. thesis, Rheinische Friedrich-Wilhelms-Universität Bonn, Bonn, Germany, 2020.  
[doi:10.48550/arXiv.2002.00316](https://doi.org/10.48550/arXiv.2002.00316)



# Unpublished work on an e-print server

```
@online{Kaufman:1972:arXiv.2409.04899,  
  title = {Lectures on Statistical Mechanics},  
  author = {Allan N. Kaufman and Bruce I. Cohen and Alain J. Brizard},  
  year = 2024,  
  eprinttype = {arXiv},  
  eprint = {2409.04899},  
  eprintclass = {cond-mat.stat-mech},  
  doi = {10.48550/arXiv.2409.04899},  
}
```

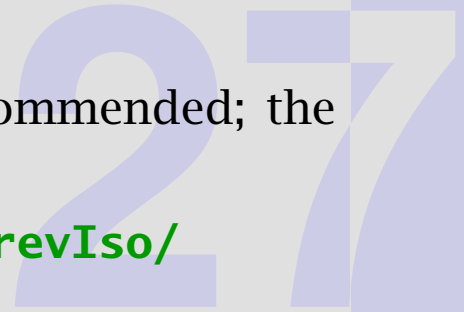
# Unpublished work on an e-print server

- A.N. Kaufman, B.I. Cohen, and A.J. Brizard, “Lectures on statistical mechanics”, *arXiv*, 2024.

[doi:10.48550/arXiv.2409.04899](https://doi.org/10.48550/arXiv.2409.04899)

# General “rules”

- ❑ Full author list is recommended;
- ❑ “Protect” words you want to keep in title with `{...}`;
- ❑ Always provide doi whenever it’s available;
- ❑ Use `year`, `month` for publication dates, and `eventyear`, `eventmonth` for event dates;
  - ISO 8601 `eventdate` is recommended, but better keep `year` for backward compatibility
- ❑ Abbreviated form of a journal name is recommended; the ISO-4 abbreviation can be obtained from <https://marcinwrochna.github.io/abbrevIso/>



# Future works

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# Future works

- Online database for all JACoW works:
  - each event has its own files:  
«event».bib and «event»-current.bib
  - can be directly loaded by `\addbibresource` with BIBER backend, but network connection is needed;
  - can be updated on status change of the proceedings:  
«pid» assigned, pre-press, and final publication
  - the labels will be like JACoW:«event»:«pid»