# The biblatex-ext Bundle

## Extensions for the biblatex standard styles

https://github.com/moewew/biblatex-ext

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## 1. Introduction

### 1.1. About

The biblatex-ext bundle provides an extended version of the standard styles that come with biblatex. For each standard style this bundle provides a style with the same name prefixed with ext- which can be used as a drop-in replacement for the standard style – for example, the replacement for authoryear-icomp is called ext-authoryear-icomp.

The aim of the styles of this bundle is to offer a simple interface to change some of the stylistic decisions made for the standard styles that would otherwise need cumbersome and tedious redefinitions. Additionally, some customisation features that were not deemed

appropriate for inclusion in the biblatex kernel are provided. Other than that the styles are as close to the standard styles as possible. They do not attempt to offer options or commands for customisations that are already fairly simple to achieve with the tools provided by the standard styles.<sup>1</sup>

The initial motivation for this bundle was what has now become the option inname-beforetitle. It is fairly straighforward to print the name of the editor of an @incollection before the booktitle. But if one does not want to resort to clever tricks, the modifications needed to do this in a stable, safe and clean manner by redefining the bibliography drivers can easily amass hundred lines of code – code you may not want to see in your preamble. Some contributed biblatex styles already place the editor in the desired position, but you may not want to commit to the other changes implied by switching to one of those styles. Especially styles written for the sole purpose of implementing the requirements of a particular style guide may have to go to great lengths to do so and are therefore not as easily modified as the standard styles. The styles of this bundle, on the other hand, try to stay as close to the standard styles as possible both in output and implementation to allow you to customise the styles with minimum additional effort over the standard styles.

A few words of warning: The styles of this bundle are only really useful if you want to use one of their features to avoid having to go through the lengthy and tedious redefinitions the standard styles would require. Before you get involved in modifying the standard styles or one of the styles of this bundle, you may want to have a look at the host of other styles available for biblatex, maybe you are lucky and the style you are looking for has already been implemented by someone else. As was the intention, most methods to modify the standard styles are also applicable to the styles of this bundle, but you may break some of their features if you happen to modify something that the ext- styles redefine themselves. While many contributed biblatex styles are examples of good biblatex style coding, this cannot be said of all of the files included in this bundle. Especially the citation styles for compact citations have to work harder to implement the citation delimiter feature properly. So if you want to get inspired for your biblatex coding, be warned that terrible things lurk in the .cbx files. The standard .cbx files will give you a much better impression of how things should be done.

### 1.2. Requirements

The use of the styles requires a current version of the biblatex package. At the time of writing the latest version of biblatex is 3.14 (dated 2019-12-01), that version is required for the styles to work properly. A warning will be issued if you use an older version. You

<sup>&</sup>lt;sup>1</sup>Please be gentle and allow for a lot of wiggle room for what exactly 'simple' means. And don't get mad if the principle is not followed at all times and the occasional solution for things that already are 'simple enough' pop up here and there.

<sup>&</sup>lt;sup>2</sup>See https://tex.stackexchange.com/q/122218/ and https://tex.stackexchange.com/q/173638/ for example.

<sup>3</sup>https://www.ctan.org/topic/biblatex

may choose to ignore that warning, but the styles cannot be guaranteed to work properly in that case: you might get other warnings or errors, and some features of the style might just fail silently.

Use of the Biber backend is strongly encouraged. Most of the new features of this bundle do not require Biber explicitly in their implementation, but many biblatex standard features only work properly with Biber.

## 1.3. Compatibility with earlier versions

In an ideal world all changes to the styles in this bundle would be fully backwards compatible. Unfortunately we do not live in this ideal world. Most changes to this bundle should introduce new features that have little relevant impact on existing functionality. But the occasional change may have more lasting consequences and may cause existing customisations to fail. In fact all changes have the potential to break someone's code, since biblatex styles have little to no distinction between public and internal code. Still, some changes are more likely to be problematic than others and those should be kept to a minimum. They can, however, be required to move development forward.

If possible, backwards compatibility measures that allow old code to continue to work are in place. Sometimes that is not feasible and in those cases the next best solution is to warn if old code is used, so please check the log file for warnings – especially after an update. But at times not even that is possible, so it is always a good idea to consult the change history after an update and to examine the output with extra scrutiny. Higher-level changes are found in the revision history in section 8, more technical changes and commentary can be found in CHANGES.md, the full set of changes can be investigated by comparing the tagged and publicly available source code.

### 1.4. Installation

This style bundle is available on CTAN.<sup>4</sup> The current release is also available in MikTeX and TeX live 2018 or newer. If at all possible you should install this bundle via your TeX distribution (using MikTeX Console<sup>5</sup> or tlmgr for TeX live<sup>6</sup>). If you must install this package manually, get the files from CTAN and install the .bbx, .cbx, .def, .sty and .lua files preferably to tex/latex/biblatex-ext of your local or home TeX tree<sup>7</sup>, the other files (CHANGES.md, README.md, biblatex-ext.tex, biblatex-ext.pdf and biblatex-ext-examples.bib) go into doc/latex/biblatex-ext. You may have to refresh your file name database afterwards, so TeX can find the files.

<sup>4</sup>https://ctan.org/pkg/biblatex-ext

<sup>5</sup>https://miktex.org/howto/miktex-console

<sup>&</sup>lt;sup>6</sup>https://www.tug.org/texlive/pkginstall.html

<sup>7</sup>https://texfaq.org/FAQ-inst-wlcf

#### 1.5. License

Permission is granted to copy, distribute and/or modify this software under the terms of the Lagrangian Tropic Public License, version 1.3c<sup>8</sup> or (at your option) any later version<sup>9</sup>. This bundle is maintained by Moritz Wemheuer (©2017–2020).

### 1.6. Feedback

You can use the biblatex-ext project page on GitHub<sup>10</sup> to report bugs and submit suggestions and feature requests, or you can do so via email.

If you do not want to report a bug or request a feature, but are simply in need of assistance, you might want to consider posting your question on the comp.text.tex newsgroup or TEX – LATEX Stack Exchange. If after a consultation on one of these sites it turns out you have happened upon a bug or that you can formulate a request for a new feature that could be useful, please head over to GitHub or send me an email.

### 2. Use

The biblatex-ext bundle is a collection of biblatex style files. You can load the styles exactly as you would load the standard styles:

```
\label{local_style} $$ \sup_{s \in \mathcal{S}} {biblatex} $$
```

The naming of the styles follows the scheme  $ext-\langle standard\ style \rangle$ , e.g., the style corresponding to authoryear-icomp is called ext-authoryear-icomp.

This manual assumes familiarity with the concepts of biblatex and does not attempt to explain any of the standard biblatex features, so you may want to have the biblatex documentation at hand to fully appreciate what is going on. If you are new to biblatex the three hundred odd pages of the manual can be hard to stomach at first, so you may want to have a look at a more gentle introduction. Of the many introductory texts and tutorials available on the internet the author particularly likes Knut Hegna and Dag Langmyhr's Local Guide to biblatex and Paul Stanley's biblatex — An Easier Read to French speakers may want to consider Maïeul Rouquette's (Xe) FTEX Appliqué aux sciences humaines available on CTAN 16. If you read German you may be interested in Dominik Waßenhoven's two-part

<sup>8</sup>https://www.latex-project.org/lppl/lppl-1-3c.txt

<sup>9</sup>https://www.latex-project.org/lppl.txt

<sup>10</sup>https://github.com/moewew/biblatex-ext

<sup>11</sup>https://tex.stackexchange.com/questions/tagged/biblatex

 $<sup>^{12}</sup>$ http://mirrors.ctan.org/macros/latex/contrib/biblatex/doc/biblatex.pdf

<sup>13</sup>https://tex.stackexchange.com/q/13509/35864

<sup>14</sup>http://dag.at.ifi.uio.no/public/doc/biblatex-guide.pdf

<sup>15</sup>https://github.com/PaulStanley/biblatex-tutorial/releases

<sup>16</sup>https://ctan.org/pkg/latex-sciences-humaines

series *Bibliographien erstellen mit biblatex* in *Die TeXnische Komödie*  $2/2008^{17}$  (pp. 53–75) and  $4/2008^{18}$  (pp. 31–51). Please keep in mind that some of these texts were written a while ago and that biblatex is actively developed: technical details may have changed and new features make some things easier.

<sup>17</sup>https://archiv.dante.de/DTK/PDF/komoedie\_2008\_2.pdf

<sup>18</sup> https://archiv.dante.de/DTK/PDF/komoedie\_2008\_4.pdf

# 3. Styles

This bundle provides an extended version of each standard style as well as a few new styles.

## 3.1. Standard styles

Please refer to the biblatex documentation<sup>19</sup> and the style examples<sup>20</sup> for a more detailed description of each standard style. The relations between the styles are exactly as in their standard counterparts. The ext- styles only build on top of the standard files.

ext-numeric An extended version of the standard numeric style for citations with numeric labels.

```
\usepackage[style=ext-numeric]{biblatex}
[1, 2, 5, 6, 7]
```

ext-numeric-comp

An extended version of the standard numeric-comp style. Similar to ext-numeric, but citation labels are compressed to give '[1-3]' instead of '[1, 2, 3]'.

```
\usepackage[style=ext-numeric-comp]{biblatex}
[1, 2, 5-7]
```

ext-numeric-verb

An extended version of the standard numeric-verb style. This style is similar to the numeric style, but each citation label is in its own set of brackets: '[1], [2], [3]'.

```
\usepackage[style=ext-numeric-verb]{biblatex}
[1], [3], [5], [6], [7]
```

ext-alphabetic An extended version of the standard alphabetic style for citations with alphabetic labels derived from author name and year.

```
\usepackage[style=ext-alphabetic]{biblatex}
[SR98, Knu86c]
```

<sup>&</sup>lt;sup>19</sup>http://mirrors.ctan.org/macros/latex/contrib/biblatex/doc/biblatex.pdf

 $<sup>^{20}</sup>$ http://mirrors.ctan.org/macros/latex/contrib/biblatex/doc/examples/

ext-alphabetic-verb An extended version of the standard alphabetic-verb style. This style is based on ext-alphabetic, but like ext-numeric-verb places each citation label in its own pair of brackets: '[SR98], [Knu86c]'.

```
\usepackage[style=ext-alphabetic-verb]{biblatex}
[SR98], [Knu86c]
```

ext-authoryear An extended version of the standard authoryear style for citations using author name and year.

```
\usepackage[style=ext-authoryear]{biblatex}
Sigfridsson and Ryde 1998
```

ext-authoryear-comp An extended version of the standard authoryear-comp style. The style is based on the author-year citations of ext-authoryear, but several works by the same author are compressed by not displaying the author multiple times: 'Knuth 1984, 1986' instead of 'Knuth 1984; Knuth 1986'.

```
\usepackage[style=ext-authoryear-comp]{biblatex}

Knuth 1984, 1986
```

ext-authoryear-ibid An extended version of the standard authoryear-ibid style. This style is similar to ext-authoryear, but repeated citations are replaced with 'ibidem'.

```
\usepackage[style=ext-authoryear-ibid]{biblatex}

Knuth 1984 ibid.
```

ext-authoryear-icomp An extended version of the standard authoryear-icomp style. This style combines the two styles ext-authoryear-comp and ext-authoryear-ibid.

```
\usepackage[style=ext-authoryear-icomp]{biblatex}

Knuth 1984, 1986 Sigfridsson and Ryde 1998 ibid.
```

ext-authortitle An extended version of the standard authortitle style for citations by author and title.

```
\usepackage[style=ext-authortitle]{biblatex}

Maron, Animal Triste
```

ext-authortitle-comp An extended version of the standard authortitle-comp style. This style is based on ext-authortitle and compresses several citations by the same author just like ext-authoryear-comp: 'Aristotle, *Physics*, *Poetics*' instead of 'Aristotle, *Physics*; Aristotle, *Poetics*'.

```
\usepackage[style=ext-authortitle-comp]{biblatex}

Aristotle, Physics, Poetics
```

ext-authortitle-ibid An extended version of the standard authortitle-ibid style. This style is similar to ext-authortitle, but replaces repeated citations of the same work with 'ibidem'.

```
\usepackage[style=ext-authortitle-ibid]{biblatex}

Maron, Animal Triste ibid.
```

ext-authortitle-icomp An extended version of the standard authortitle-icomp style. This style combines ext-authortitle-comp and ext-authortitle-ibid.

```
\usepackage[style=ext-authortitle-icomp]{biblatex}
Aristotle, Physics, Poetics Maron, Animal Triste ibid.
```

ext-authortitle-terse An extended version of the standard authortitle-terse style. This style is similar to ext-authortitle, but the title is omitted in citations if there is only one work by the relevant author.

```
\usepackage[style=ext-authortitle-terse]{biblatex}
Sigfridsson and Ryde Aristotle, Physics; Aristotle, Poetics
```

ext-authortitle-tcomp An extended version of the standard authortitle-tcomp style. This style combines ext-authortitle-terse and ext-authortitle-comp.

```
\usepackage[style=ext-authortitle-tcomp]{biblatex}
Sigfridsson and Ryde Aristotle, Physics, Poetics
```

ext-authortitle-ticomp An extended version of the standard authortitle-ticomp style. This style combines ext-authortitle-terse, ext-authortitle-comp and ext-authortitle-ibid.

\usepackage[style=ext-authortitle-ticomp]{biblatex}

Aristotle, Physics, Poetics Sigfridsson and Ryde ibid.

ext-verbose An extended version of the standard verbose style. This style shows the full bibliographic reference the first time a work is cited.

ext-verbose-ibid An extended version of the standard verbose-ibid style. Based on ext-verbose, repeated citations to the same work are replaced with 'ibidem'.

ext-verbose-note An extended version of the standard verbose-note style. Based on ext-verbose and intended for use in footnotes, subsequent citations link back to the footnote the entry was cited at first and in full.

ext-verbose-inote An extended version of the standard verbose-inote style. Similar to verbose-note, but repeated citations to the same work are replaced with 'ibidem'.

ext-verbose-trad1 An extended version of the standard verbose-trad1 style. This style makes extensive use of scholarly abbreviations and is otherwise similar to ext-verbose.

ext-verbose-trad2 An extended version of the standard verbose-trad2 style. The style is similar to ext-verbose-inote and uses scholarly abbreviations to shorten citations.

ext-verbose-trad3 An extended version of the standard verbose-trad3 style. This style is similar to ext-verbose-trad2.

## 3.2. New styles

The following styles are not mere extensions of a particular standard style, instead they implement new combinations or extensions of the concepts available in the standard styles.

ext-authoryear-ecomp An author-year citation that is even more compact than ext-authoryear-comp, it compresses lists of extradate letters from 'Knuth 1986a,b,c' to 'Knuth 1986a-c'.

```
\usepackage[style=ext-authoryear-ecomp]{biblatex}
Sigfridsson and Ryde 1998 Knuth 1986a-c
```

ext-authoryear-iecomp An author-year citation that is even more compact than ext-authoryear-icomp, it compresses lists of extradate letters from 'Knuth 1986a,b,c' to 'Knuth 1986a-c'.

```
\usepackage[style=ext-authoryear-iecomp]{biblatex}
Sigfridsson and Ryde 1998 ibid. Knuth 1986a-c
```

ext-authoryear-terse An author-year citation style that suppresses years for author lists with only one work in the bibliography. This style is like ext-authortitle-terse, but it is based on ext-authoryear and not on ext-authortitle.

```
\usepackage[style=ext-authoryear-terse]{biblatex}
Sigfridsson and Ryde Knuth 1984 Knuth 1986
```

ext-authoryear-tcomp A compact author-year citation style that suppresses years for author lists with only one work in the bibliography. This style is like ext-authortitle-tcomp, but it is based on ext-authoryear and not on ext-authortitle.

```
\usepackage[style=ext-authoryear-tcomp]{biblatex}
Sigfridsson and Ryde Knuth 1984, 1986
```

ext-authoryear-tecomp A compact author-year citation style that combines ext-authoryear-tcomp and ext-authoryear-ecomp.

```
\usepackage[style=ext-authoryear-tecomp]{biblatex}
Sigfridsson and Ryde Knuth 1984, 1986a-c
```

ext-authoryear-ticomp A compact author-year citation style with 'ibidem' function that suppresses years for author lists with only one work in the bibliography. This style is like ext-authortitle-ticomp, but it is based on ext-authoryear and not on ext-authortitle.

```
\usepackage[style=ext-authoryear-ticomp]{biblatex}
Sigfridsson and Ryde ibid. Knuth 1984, 1986
```

 $\begin{array}{c} \text{ext-authoryear-tiecomp} \quad A \ \text{compact author-year citation style that combines ext-authoryear-ticomp and} \\ \text{ext-authoryear-iecomp}. \end{array}$ 

\usepackage[style=ext-authoryear-tiecomp]{biblatex}
Sigfridsson and Ryde ibid. Knuth 1984, 1986a-c

# 4. Options

All options of the biblatex package are supported and each style supports the options of its standard counterpart.

## 4.1. General options

Additionally, all styles support the following options in global, per-type and per-entry scope. The default values are such that the styles can be used as drop-in replacement for the standard files without significant changes in output.

#### articlein=true, false

default: true

Whether or not to display 'in:' before the journal information in @article entries. All other entry types are not affected by this option. If it is desired to remove the 'in:' for more entry types or a more specific behaviour is required, then it is still going to be necessary to modify the bibmacro in:

### articlein=true

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395.

Westfahl, Gary (2000b). 'The True Frontier. Confronting and Avoiding the Realities of Space in American Science Fiction Films'. In: *Space and Beyond. The Frontier Theme in Science Fiction*. Ed. by Gary Westfahl. Westport, Conn. and London: Greenwood, pp. 55–65.

#### articlein=false

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. *Journal of Computational Chemistry* 19.4, pp. 377–395.

Westfahl, Gary (2000b). 'The True Frontier. Confronting and Avoiding the Realities of Space in American Science Fiction Films'. In: Space and Beyond. The Frontier Theme in Science Fiction. Ed. by Gary Westfahl. Westport, Conn. and London: Greenwood, pp. 55–65.

citexref=true, false default: false

This option controls if @inbook, @incollection and @inproceedings entries that are tied to a parent entry with xref or crossref should show all data of their parent entry inline as usual or if they should cite their parent entry instead if the parent is listed in the

bibliography as a separate entry. With the default setting citexref=false the parent is not cited, the entry is shown as in the standard styles. If the option is set to true, the block following the 'in:' with the parent data is replaced by a citation to the parent entry and thus becomes more compact.

Parent entries will only be cited by this feature if they appear in the bibliography.

The option itself does *not* cause the parent entry to be added to the bibliography automatically. This needs to happen either explicitly by citing the parent (possibly with \nocite) or implicitly via the minxrefs or mincrossrefs option.



default: false

### citexref=true

Westfahl, Gary, ed. (2000a). *Space and Beyond. The Frontier Theme in Science Fiction.* Westport, Conn. and London: Greenwood.

 (2000b). 'The True Frontier. Confronting and Avoiding the Realities of Space in American Science Fiction Films'. In: Westfahl 2000a, pp. 55-65.

### citexref=false

Westfahl, Gary, ed. (2000a). *Space and Beyond. The Frontier Theme in Science Fiction.* Westport, Conn. and London: Greenwood.

 (2000b). 'The True Frontier. Confronting and Avoiding the Realities of Space in American Science Fiction Films'. In: *Space and Beyond. The Frontier Theme in Science Fiction*. Ed. by Gary Westfahl. Westport, Conn. and London: Greenwood, pp. 55–65.

#### innamebeforetitle=true, false

Whether or not the editor should be moved before the booktitle field for @inbook, @incollection and @inproceedings entries.

#### innamebeforetitle=true

Pines, Shlomo (1979). 'The Limitations of Human Knowledge According to Al-Farabi, ibn Bajja, and Maimonides'. In: Isadore Twersky, ed. *Studies in Medieval Jewish History and Literature*. Cambridge, Mass.: Harvard University Press, pp. 82–109.

### innamebeforetitle=false

Pines, Shlomo (1979). 'The Limitations of Human Knowledge According to Al-Farabi, ibn Bajja, and Maimonides'. In: *Studies in Medieval Jewish History and Literature*. Ed. by Isadore Twersky. Cambridge, Mass.: Harvard University Press, pp. 82–109.

innameidem=true, false

Whether or not the editor of the booktitle for the entry types @inbook, @incollection and @inproceedings is replaced by 'idem' in case the editor and author name lists coincide. This option only has an effect if innamebeforetitle is set to true.

### innameidem=true (and innamebeforetitle=true)

Gaonkar, Dilip Parameshwar (2001b). 'On Alternative Modernities'. In: idem, ed. *Alternative Modernities*. Ed. by Dilip Parameshwar Gaonkar. Durham and London: Duke University Press, pp. 1–23.

#### innameidem=false (and innamebeforetitle=true)

Gaonkar, Dilip Parameshwar (2001b). 'On Alternative Modernities'. In: Dilip Parameshwar Gaonkar, ed. *Alternative Modernities*. Ed. by Dilip Parameshwar Gaonkar. Durham and London: Duke University Press, pp. 1–23.

#### maintitleaftertitle=true, false

Whether or not the maintitle is printed after the title or booktitle of the work. If maintitleaftertitle is true, the volume field will be printed with the volumeof format.

#### maintitleaftertitle=true

Knuth, Donald E. (1984). *The T<sub>E</sub>Xbook*. Vol. A of *Computers & Typesetting*. Reading, Mass.: Addison-Wesley.

### maintitleaftertitle=false

Knuth, Donald E. (1984). *Computers & Typesetting*. Vol. A: *The T<sub>E</sub>Xbook*. Reading, Mass.: Addison-Wesley.

## 4.2. Style-specific options

dashed=true, false, fullhash, bibnamehash

default: true

default: false

default: false

The dashed option of the authoryear- and authortitle-like bibliography styles allows for finer control over the dashes than in the standard styles. The option is available globally and additionally on a per-type and per-entry level.

This option controls whether or not recurring lists of authors/editors in the bibliography are replaced with a dash. The standard values true and false are still valid and give the

exact same output as in the standard styles. This means that the output is fully compatible with the standard styles. The new values fullhash and bibnamehash differ in how exactly they determine if a list of authors/editors is the same as the previous.

true An alias for fullhash.

false Disable this feature.

bibnamehash Replace recurring name lists with a dash. Compare name lists using bibnamehash, taking into account only names that are actually listed in the bibliography account.

bibliography account.

fullhash Replace recurring name lists with a dash. Compare name lists using fullhash, taking into account all names in the list, even those that are truncated and do not appear in the bibliography.

Assuming maxnames=1 and no name list disambiguation (uniquelist=false), the four entries

```
@book{appleby:civ,
  author = {Humphrey Appleby},
  title = {On the Importance of the Civil Service},
  date = \{1980\},
}
@book{appleby:abl,
  author = {Humphrey Appleby},
  title = {On the Ablative in Greek},
 date = \{1982\},
}
@book{elk:bronto,
  author = {Elk, Anne and Hacker, James and Rumpo, Syd},
  title = {On the Theory of Brontosauruses},
       = {1972},
  date
@book{elk:einio,
 author = {Elk, Anne and Hacker, James and Pode, Eric},
 title = {On the Theory of Einiosauruses},
  date
         = \{1973\},
}
```

give

#### dashed=false

Appleby, Humphrey (1980). On the Importance of the Civil Service.

Appleby, Humphrey (1982). On the Ablative in Greek.

Elk, Anne et al. (1972). On the Theory of Brontosauruses.

Elk, Anne et al. (1973). On the Theory of Einiosauruses.

#### dashed=bibnamehash

Appleby, Humphrey (1980). On the Importance of the Civil Service.

- (1982). On the Ablative in Greek.

Elk, Anne et al. (1972). On the Theory of Brontosauruses.

- (1973). On the Theory of Einiosauruses.

### dashed=fullhash

Appleby, Humphrey (1980). On the Importance of the Civil Service.

- (1982). On the Ablative in Greek.

Elk, Anne et al. (1972). On the Theory of Brontosauruses.

Elk, Anne et al. (1973). On the Theory of Einiosauruses.

With dashed=bibnamehash the dash replaces the name list if they are indistinguishable in the bibliography, while with dashed=fullhash the lists are only replaced if they are indistinguishable in the data source.

introcite=false, plain, label

The introcite option is available for the bibliography styles of the authoryear and authortitle family. It cannot be used with citation styles of the verbose family, where it may produce undesired output or errors. The option is available globally and on a per-type and per-entry level, where only the values plain (and the default false) are supported.



default: false

This option controls whether or not the citation label is repeated in the bibliography. There are two possible output formats.

false Do not show the citation label in the bibliography.

Show the citation label at the beginning of an entry.

Show the citation label as the label of a list similar to the numeric or alpha-

betic styles.

The difference between plain and label is that the former simply prints the citation label at the beginning of the entry, while the latter prints the citation label similar to the item labels in a list or the numeric labels in a numeric bibliography.

### introcite=false

Knuth, Donald E. (1984). *Computers & Typesetting*. Vol. A: *The TEXbook*. Reading, Mass.: Addison-Wesley.

Knuth, Donald E. (1986a). *Computers & Typesetting*. Vol. B: *T<sub>E</sub>X: The Program*. Reading, Mass.: Addison-Wesley.

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395.

#### introcite=plain

Knuth 1984: Knuth, Donald E. (1984). *Computers & Typesetting*. Vol. A: *The TEXbook*. Reading, Mass.: Addison-Wesley.

Knuth 1986a: Knuth, Donald E. (1986a). *Computers & Typesetting*. Vol. B: *TeX: The Program*. Reading, Mass.: Addison-Wesley.

Sigfridsson and Ryde 1998: Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395.

#### introcite=label

Knuth 1984 Knuth, Donald E. (1984). *Computers & Typesetting*. Vol. A: *The TEXbook*. Reading, Mass.: Addison-Wesley.

Knuth 1986a Knuth, Donald E. (1986a). *Computers & Typesetting*. Vol. B: *TEX: The Program*. Reading, Mass.: Addison-Wesley.

Sigfridsson and Ryde 1998

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395.

The label produced by the plain option can be customised as follows.

\introcitepunct The punctuation inserted between the label and the rest of the entry with introcite= plain. The default value is a colon followed by a space.

Sigfridsson and Ryde 1998: Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395.

bbx:introcite:plain:keeprelated This toggle controls whether or not the citation label is also repeated for default related entries. The default value false suppresses the label for related entries.

## \togglefalse{bbx:introcite:plain:keeprelated} (default)

Vizedom and Caffee 1960: Vizedom, Monika B. and Gabrielle L. Caffee, trans. (1960). *The Rites of Passage*. University of Chicago Press. Trans. of Arnold van Gennep. *Les rites de passage*. Paris: Nourry, 1909.

### \toggletrue{bbx:introcite:plain:keeprelated}

Vizedom and Caffee 1960: Vizedom, Monika B. and Gabrielle L. Caffee, trans. (1960). *The Rites of Passage*. University of Chicago Press. Trans. of van Gennep 1909: Arnold van Gennep. *Les rites de passage*. Paris: Nourry, 1909.

Note that the implementation of some related types automatically suppresses the introcite label – or rather, does not add the label in the first place. That means that the resulting bibliography should be checked for consistency if the toggle is set to true.

The label option can be configured to not allow the label to run into the remaining bibliography entry thus creating the appearance of a tabular-like bibliography. The citation label is not broken across lines, instead it moves the entry text into the next line with \introcitebreak if the width of the citation is greater than \introcitewidth.

\introcitewidth The maximum width of the citation label. The initial value is 8 times \biblabelsep.

\introcitesep This length sets the minimal space between the end of the citation label and the beginning of the rest of the entry. The initial value is \biblabelsep.

\introcitebreak The command to execute if a citation label exceeds \introcitewidth. The default is \leaveymode\newline.

## Lengths for introcite=label

## Coleridge 1983

Coleridge, Samuel Taylor (1983). The collected works of Samuel Taylor Coleridge. Vol. 7.2: Biographia literaria, or Biographical sketches of my literary life and opinions. Ed. by Kathleen Coburn, James Engell and W. Jackson Bate. Bollingen Series 75. London: Routledge and Kegan Paul.

# \introcitesep

Geer 1985+

Geer, Ingrid de (1985). 'Earl, Saint, Bishop, Skald – and Music. \introcitewidth The Orkney Earldom of the Twelfth Century. A Musicological Study'. PhD thesis. Uppsala: Uppsala Universitet.

Sigfridsson and Ryde 1998

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: Journal of Computational Chemistry 19.4, pp. 377-395.

## introcite=label with empty \introcitebreak

%\usepackage[..., introcite=label]{biblatex} \renewcommand\*{\introcitebreak}{}

Coleridge 1983 Coleridge, Samuel Taylor (1983). The collected works of Samuel *Taylor Coleridge*. Vol. 7.2: *Biographia literaria*, or *Biographical sketches* of my literary life and opinions. Ed. by Kathleen Coburn, James Engell and W. Jackson Bate. Bollingen Series 75. London: Routledge and Kegan Paul.

Geer 1985

Geer, Ingrid de (1985). 'Earl, Saint, Bishop, Skald - and Music. The Orkney Earldom of the Twelfth Century. A Musicological Study'. PhD thesis. Uppsala: Uppsala Universitet.

## 

```
%\usepackage[..., introcite=label]{biblatex}
\setlength{\introcitewidth}{0pt}
\setlength{\introcitesep}{\bibhang}
```

#### Geer 1985

Geer, Ingrid de (1985). 'Earl, Saint, Bishop, Skald – and Music. The Orkney Earldom of the Twelfth Century. A Musicological Study'. PhD thesis. Uppsala: Uppsala Universitet.

Sigfridsson and Ryde 1998

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395.

In order to reproduce the citation label accurately in the bibliography, some initialisation and housekeeping needs to be done.

```
\AtIntrocite\{\langle code \rangle\}
\AtIntrocite*\{\langle code \rangle\}
```

Appends the  $\langle code \rangle$  to an internal hook executed when initializing \introcite. The starred variant of the command clears the initialisation hook, so the defaults can be overwritten. The default settings execute the internal macro \extblx@introcite@init, which makes sure that the label produced for introcite takes into account the citation settings and suppresses unwanted citation tracking and hyperlinks.

The appearance of the citation label can be customised mostly as if it were produced by a true citation command called \bbx@introcite. The delimiter context is bbx@introcite, the inner citation delimiters can be accessed as bbx@introcite as well. The label does not have outer citation delimiters, you can use the wrapper field format bbx@introcite instead. In fact this approach is more versatile than the outer citation delimiter feature (see the discussion in section 5.3). The default settings for \bbx@introcite emulate the output of \cite.

### Example customisations for introcite=plain

```
%\usepackage[..., introcite=plain]{biblatex}
\DeclareFieldFormat{bbx@introcite}{\mkbibbrackets{#1}}
\DeclareDelimFormat[bbx@introcite]{nameyeardelim}{\addcomma\space}
\UndeclareInnerCiteDelims{bbx@introcite}
\renewcommand*{\introcitepunct}{\quad}
```

[Sigfridsson and Ryde, 1998] Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395.

### Example customisations for introcite=plain

```
%\usepackage[..., introcite=plain]{biblatex}
\DeclareFieldFormat{bbx@introcite}{\mkbibbold{#1}}
\renewcommand*{\introcitepunct}{\\}
```

### Sigfridsson and Ryde 1998

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395.

#### Example customisations for introcite=label

```
%\usepackage[..., introcite=label]{biblatex}
\DeclareFieldFormat{bbx@introcite}{\mkbibbold{#1}}
\DeclareDelimFormat[bbx@introcite]{nameyeardelim}{\addspace}
\DeclareInnerCiteDelims{bbx@introcite}{\bibopenparen}{\bibcloseparen}
\setlength{\introcitewidth}{0pt}
\setlength{\introcitesep}{\bibhang}
```

### Coleridge (1983)

Coleridge, Samuel Taylor (1983). *The collected works of Samuel Taylor Coleridge*. Vol. 7.2: *Biographia literaria, or Biographical sketches of my literary life and opinions*. Ed. by Kathleen Coburn, James Engell and W. Jackson Bate. Bollingen Series 75. London: Routledge and Kegan Paul.

## Geer (1985)

Geer, Ingrid de (1985). 'Earl, Saint, Bishop, Skald – and Music. The Orkney Earldom of the Twelfth Century. A Musicological Study'. PhD thesis. Uppsala: Uppsala Universitet.

If you are using an author-year citation style together with introcite=label or introcite=label, you may be interested in combining this with bibstyle=ext-authortitle instead to move the year back to the end of the entry.

## introcite=label with style=ext-authoryear and bibstyle=ext-authortitle

```
%\usepackage[
% citestyle=ext-authoryear,
% bibstyle=ext-authortitle,
% sorting=nyt,
% introcite=label,
% ...
%]{biblatex}
\setlength{\introcitewidth}{0pt}
\setlength{\introcitesep}{\bibhang}
```

#### Geer 1985

Geer, Ingrid de. 'Earl, Saint, Bishop, Skald – and Music. The Orkney Earldom of the Twelfth Century. A Musicological Study'. PhD thesis. Uppsala: Uppsala Universitet, 1985.

## Sigfridsson and Ryde 1998

Sigfridsson, Emma and Ulf Ryde. 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4 (1998), pp. 377–395.

### 5. Further Customisations

Aside from the new options mentioned in the last section the styles of this bundle also offer additional field formats, punctuation and delimiter commands, a new citation delimiter interface and a few new bibliography macros.

The citation delimiter interface is a novel feature of biblatex-ext, but for the other subsections familiarity with the underlying biblatex concepts is assumed. Some of this is easier understood by looking at the source code directly, so it might not be a bad idea to have ext-standard.bbx open when perusing this section of the manual.

### 5.1. Field formats

The styles of this bundle offer customisable field formats in a few places where the standard styles employ hard-coded formatting directives instead. Field formats can be modified with \DeclareFieldFormat.

biblabeldate

The format for the labeldate in the bibliography for authoryear-like styles. The default is to wrap the date in round brackets.

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: Journal of Computational Chemistry 19.4, pp. 377-395.

## Customisation example for biblabeldate

\DeclareFieldFormat{biblabeldate}{#1} \DeclareDelimFormat[bib]{nameyeardelim}{\addperiod\space}

Sigfridsson, Emma and Ulf Ryde, 1998. 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: Journal of Computational Chemistry 19.4, pp. 377-395.

biblistlabeldate Like bibliabeldate, but for bibliography lists created by \printbiblist. The default is to use the same format as biblabeldate.

issuedate

The format of the issue and date information for @articles. By default this block is wrapped in round brackets.

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: Journal of Computational Chemistry 19.4 (1998), pp. 377-395.

volume of The format for the volume of a maintitle used when maintitleaftertitle=true.

Knuth, Donald E. (1984). The Trixbook. Vol. A of Computers & Typesetting. Reading, Mass.: Addison-Wesley.

titlecase:title

The standard styles follow an all-or-nothing approach when it comes to title casing. The field format titlecase intended to enable sentence case with \MakeSentenceCase\* is applied to all title-like fields alike. Finer control over the title casing of each field could require involved code.<sup>21</sup> The field format titlecase:title is applied to the fields title and subtitle. By default this field format is an alias for titlecase.

titlecase:booktitle Like titlecase:title, but controls the title casing of the booktitle and booksubtitle fields.

titlecase:maintitle Like titlecase:title, but controls the title casing of the maintitle and mainsubtitle fields.

titlecase:journaltitle Like titlecase:title, but controls the title casing of the journaltitle and journalsubtitle fields.

titlecase:issuetitle Like titlecase:title, but controls the title casing of the issuetitle and issuesubtitle fields.

The citetitle field format can be used to change the title case in author-title citations, so there is no citetitle:labeltitle.

# Default output for titlecase field formats

Shore, Bradd (Mar. 1991). 'Twice-Born, Once Conceived. Meaning Construction and Cultural Cognition'. In: American Anthropologist. New ser. 93.1, pp. 9–27.

## Example changes to titlecase field formats

\DeclareFieldFormat{titlecase:title}{\MakeSentenceCase\*{#1}} \DeclareFieldFormat{titlecase:journaltitle}{#1}

Shore, Bradd (Mar. 1991). 'Twice-born, once conceived. Meaning construction and cultural cognition'. In: American Anthropologist. New ser. 93.1, pp. 9–27.

#### 5.2. Punctuation

The package provides the following commands to modify the delimiters and punctuation between fields. Normal punctuation commands should be redefined with \renewcommand, while context-sensitive commands marked with context sensitive should be redefined with

<sup>21</sup> https://tex.stackexchange.com/a/22981/

\DeclareDelimFormat. A short overview over common punctuation commands defined by biblatex-ext as well as standard biblatex in an example bibliography can be found in appendix A.

\innametitledelim Similar to \nametitledelim, but for names after the 'in:' if innamebeforetitle is true. The default value is that of \nametitledelim for all contexts. Since the definition of \nametitledelim is different for the delimiter contexts bib and biblist, you may have to use the optional argument to redefine the delimiter.<sup>22</sup>

context sensitive

Pines, Shlomo (1979). 'The Limitations of Human Knowledge According to Al-Farabi, ibn Bajja, and Maimonides'. In: Isadore Twersky (ed.). Studies in Medieval Jewish History and Literature. Cambridge, Mass.: Harvard University Press, pp. 82–109.

Note that editortype and \editortypedelim were changed to

\DeclareFieldFormat{editortype}{\mkbibparens{#1}}
\DeclareDelimFormat{editortypedelim}{\addspace}



in this example to avoid punctuation clashes.

Since \nametitledelim and \innametitledelim are independent, the following output is easily achieved. Note that the optional argument to \DeclareDelimFormat is used to make sure the definitions apply to the bibliography and bibliography lists contexts, this is necessary because these contexts have special pre-defined values that would otherwise not be redefined.

## Example customisations for \innametitledelim

\ExecuteBibliographyOptions{innamebeforetitle=true}
\DeclareDelimFormat[bib,biblist]{nametitledelim}{\addcolon\space}
\DeclareDelimFormat[bib,biblist]{innametitledelim}{\addcomma\space}

Gaonkar, Dilip Parameshwar, ed. (2001a): *Alternative Modernities*. Durham and London: Duke University Press. ISBN: 0-822-32714-7.

(2001b): 'On Alternative Modernities'. In: Dilip Parameshwar Gaonkar, ed., *Alternative Modernities*. Durham and London: Duke University Press, pp. 1–23. ISBN: 0-822-32714-7.

<sup>&</sup>lt;sup>22</sup>The author admits that it is somewhat pointless to make \innametitledelim context sensitive. But the obvious parallels with \nametitledelim were too tempting. It is probably too late now.

\maintitletitledelim The punctuation between the maintitle and title or booktitle of a work if maintitleaftertitle is false. The default is \newunitpunct.

Knuth, Donald E. (1984). *Computers & Typesetting*. Vol. A: *The TEXbook*. Reading, Mass.: Addison-Wesley.

\voltitledelim The punctuation between the volume and title or booktitle of a work if maintitle-aftertitle is false. The default is a colon followed by a space.

Knuth, Donald E. (1984). *Computers & Typesetting*. Vol. A: *The TeXbook*. Reading, Mass.: Addison-Wesley.

\titlemaintitledelim The punctuation between the title or booktitle and maintitle of a work if maintitleaftertitle is true. The default is \newunitpunct.

Knuth, Donald E. (1984). *The TeXbook*. Vol. A of *Computers & Typesetting*. Reading, Mass.: Addison-Wesley.

\titleaddonpunct The punctuation between title/subtitle and maintitle as well as other title-like and maintitle-like fields. The default is \newunitpunct

Salam, Abdus (1968). 'Weak and Electromagnetic Interactions'. In: *Elementary particle theory. Relativistic groups and analyticity.* Proceedings of the Eighth Nobel Symposium (Aspenäsgarden, Lerum, 19th–25th May 1968). Ed. by Nils Svartholm. Stockholm: Almquist & Wiksell, pp. 367–377.

## Example customisation of \titleaddonpunct

\DeclareFieldFormat{booktitleaddon}{\mkbibbrackets{#1}}
\renewcommand\*{\titleaddonpunct}{\addspace}

Salam, Abdus (1968). 'Weak and Electromagnetic Interactions'. In: *Elementary particle theory. Relativistic groups and analyticity* [Proceedings of the Eighth Nobel Symposium]. Ed. by Nils Svartholm. Stockholm: Almquist & Wiksell, pp. 367–377.

\jourvoldelim The delimiter between the journaltitle and volume fields for @article if no series is present. The default is a space.

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry*, 19.4 (1998), pp. 377–395.

## Example customisation of \jourvoldelim and \volnumdelim

\DeclareFieldFormat[article,periodical]{volume}{\bibstring{jourvol}~#1}
\DeclareFieldFormat[article,periodical]{number}{\bibstring{number}~#1}
\renewcommand\*{\jourvoldelim}{\addcomma\space}
\renewcommand\*{\volnumdelim}{\addcomma\space}

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry*, vol. 19, no. 4 (1998), pp. 377–395.

\jourserdelim The delimiter between the journaltitle and series fields for @article. The default is \newunitpunct.

Reese, Trevor R. (1958). 'Georgia in Anglo-Spanish Diplomacy, 1736–1739'. In: William and Mary Quarterly, 3rd ser. 15 (1958), pp. 168–190.

Shore, Bradd (1991). 'Twice-Born, Once Conceived. Meaning Construction and Cultural Cognition'. In: *American Anthropologist*. New ser. 93.1 (Mar. 1991), pp. 9–27.

\servoldelim The delimiter between the series and volume fields for @article. The default is \jourvol-delim.

Reese, Trevor R. (1958). 'Georgia in Anglo-Spanish Diplomacy, 1736–1739'. In: William and Mary Quarterly. 3rd ser. 15 (1958), pp. 168–190.

Shore, Bradd (1991). 'Twice-Born, Once Conceived. Meaning Construction and Cultural Cognition'. In: *American Anthropologist*. New ser. 93.1 (Mar. 1991), pp. 9–27.

\volnumdatedelim The delimiter between the volume, number block and the date information for @article.

The default is a space.

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4 (1998), pp. 377–395.

#### Example customisation of \volnumdatedelim

\DeclareFieldFormat{issuedate}{#1}
\renewcommand\*{\volnumdatedelim}{\addcomma\space}

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, 1998, pp. 377–395.

\volnumdelim The delimiter between volume and number for @article. The default is a dot.

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395.

## Example customisation of \volnumdelim

\DeclareFieldFormat[article,periodical]{number}{\mkbibparens{#1}}
\renewcommand\*{\volnumdelim}{}

Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19(4), pp. 377–395.

\sernumdelim The delimiter between series and number for @book- and @inbook-like entries. The default is a space.

Coleridge, Samuel Taylor (1983). *The collected works of Samuel Taylor Coleridge*. Vol. 7.2: *Biographia literaria, or Biographical sketches of my literary life and opinions*. Ed. by Kathleen Coburn, James Engell and W. Jackson Bate. Bollingen Series, 75. London: Routledge and Kegan Paul.

\locdatedelim The delimiter between location and date. The default is a comma followed by a space.

Jaffé, Philipp, ed. (1885–1888). *Regesta Pontificum Romanorum ab condita ecclesia ad annum post Christum natum MCXCVIII*. Red. by Samuel Loewenfeld, Ferdinand Kaltenbrunner and Paul Ewald. 2nd ed. 2 vols. Leipzig., 1885–1888.

\locpubdelim The delimiter between location and publisher/organization/institution. The default is a colon followed by a space.

Knuth, Donald E. (1984). *Computers & Typesetting*. Vol. A: *The T<sub>E</sub>Xbook*. Reading, Mass.: Addison-Wesley, 1984.

\publocdelim

The delimiter between publisher/organization/institution and location. The default is a comma followed by a space. This delimiter is not used by the default style, since the standard order of fields is location, publisher/organization/institution, date. You could use \publocdelimif you changed the order of these fields to publisher/organization/institution, location date by redefining the bibmacro publisher/location+date as follows.

```
Example use of \publocdelim and \locdatedelim

\renewbibmacro*{pubinstorg+location+date}[1]{%
\printlist{#1}%
\setunit*{\publocdelim}%
\printlist{location}%
\setunit*{\locdatedelim}%
\usebibmacro{date}%
\newunit}

Knuth, Donald E. (1984). Computers & Typesetting. Vol. A: The TeXbook. Addison-Wesley, Reading, Mass., 1984.
```

\pubdatedelim The delimiter between publisher/organization/institution and date. The default is a comma followed by a space.

Knuth, Donald E. (1984). *Computers & Typesetting*. Vol. A: *The TEXbook*. Reading, Mass.: Addison-Wesley, 1984.

### Example customisation of \pubdatedelim

\renewcommand\*{\pubdatedelim}{\addspace}

Knuth, Donald E. (1984). *Computers & Typesetting*. Vol. A: *The T<sub>E</sub>Xbook*. Reading, Mass.: Addison-Wesley 1984.

\extradateonlycompcitedelim Similar to \compcitedelim, but indended for use between compressed citations where the second is an extradate only. The default is a comma (not followed by a space).

context sensitive

Knuth 1986a,b

\extradateonlycompciterangedelim Similar to \extradateonlycompcitedelim, but indended for use in a compressed list of extradates in the -ecomp styles. The default is \bibrangedash.

context sensitive

Knuth 1986a-c

### 5.3. Delimiters for citation commands

The delimiters for citation commands provided by the styles of this bundle offer a simple way to customise the bracketing of citation commands.

The citation commands \cite, \parencite and \textcite come with two sets of delimiters: A pair of *outer delimiters* wrapped around the resulting citation in its entirety and a pair of *inner delimiters* that sets off certains bits of the citation label from other information. An example for outer delimiters would be the round brackets of \parencite for authoryear-like styles or the square brackets of \cite for numeric- or alphabetic-like styles. Inner delimiters would be the round brackets in \textcite around the year for authoryear or around the title for authortitle. See table 1 for more details.

The delimiters are set up to work as paired delimiters, but you are free to use non-matching pairs or to leave the opening or closing delimiter empty. If you want to add punctuation, the context-sensitive delimiters nameyeardelim, nametitledelim, postnotedelim and friends are more approriate.

Although the outer delimiters can be set up using <code>\DeclareCiteCommand</code>'s optional  $\langle wrapper \rangle$  argument for most styles, this is not possible for all styles. Similarly, inner delimiters can be set up with <code>\DeclareFieldFormat</code> in some styles, but other styles need more intricate implementations. This means that the commands discussed here can be used to place the citations between delimiters, but not natively to pass the result of a citation to a wrapper command as an argument.



Table 1: Outer and inner citation delimiters by style. If the style does not use the delimiters by default,  $\langle$  and  $\rangle$  are substituted in the appropriate place.

Style family	\cite	\parencite	\textcite
alphabetic numeric authortitle authoryear	[Knu84] [2] (Knuth, ( <i>T<sub>E</sub>Xbook</i> )) (Knuth (1984))	[Knu84] [2] (Knuth, 〈 <i>T<sub>E</sub>Xbook</i> 〉) (Knuth 〈1984〉)	(Knuth [Knu84]) (Knuth [2]) (Knuth ( <i>T<sub>E</sub>Xbook</i> )) (Knuth (1984))

 $\DeclareOuterCiteDelims{\langle cite command \rangle}{\langle opening delimiter \rangle}{\langle closing delimiter \rangle}$ 

Sets up the outer delimiters for the citation command  $\c cite\ command$ . The name of the  $\c cite\ command$  is given without leading backslash in the argument, it normally corresponds to the delimiter context.

Note that outer citation delimiters are often hard-coded so they usually do not respond to delimiter context aliases. Inner citation delimiters, on the other hand, usually follow delimiter context aliases. This may lead to initially surprising results if aliases are used.

You may use almost any input for *(opening delimiter)* and *(closing delimiter)* as long as type-setting of '*(opening delimiter)* text *(closing delimiter)*' does not lead to errors when arbitrary grouping such as '*(opening delimiter)* text *(closing delimiter)*' is introduced. It cannot be guaranteed that the opening and closing delimiters are executed at the same level of grouping, let alone in the same group. As mentioned above, this approach is not suitable to wrap the citation up in a wrapper command, i.e. to pass the entire output of the citation command as argument to a macro.

Instead of hard-coded (, ), [ and ] their biblatex counterparts \bibopenparen, \bibclose-paren, \bibclosebracket and \bibclosebracket are preferable, since these commands respond to nesting and check if opening brackets are always closed.

Use the outer delimiters of \\(\lambda\) cite command\\ for \\(\lambda\) as well. The unstarred version uses \\\def assignment while the starred version uses \\\\lambda\) tet. This means that the starred version copies the values of the definitions at the time of executing the aliasing command, whereas the alias created by the unstarred version will only evaluate the delimiters whenever the citation command is called.

\UndeclareOuterCiteDelims{\langle cite command \rangle}

Completely remove the definitions of the outer delimiters for  $\c cite command$ .

```
\DeclareInnerCiteDelims{\(\sigma\) cite command\)}{\(\sigma\) pening delimiter\)}{\(\sigma\) delimiter\)}
```

Sets up the inner delimiters for the citation command  $\c cite command$ .

This command is similar to \DeclareOuterCiteDelims and the same restrictions for the arguments apply.

Note that inner citation delimiters usually follow context delimiter aliases. Outer citation delimiters, on the other hand, do not respond to context delimiter aliases. This may lead to initially surprising results if aliases are used.

Use the inner delimiters of \\cite command\rangle for \\cite alias\rangle as well. The unstarred version uses \def assignment while the starred version uses \let. This means that the starred version copies the values of the definitions at the time of executing the aliasing command, whereas the alias created by the unstarred version will only evaluate the delimiters whenever the citation command is called.

```
\UndeclareInnerCiteDelims{\langle cite command \rangle}
```

Completely remove the definitions of the inner delimiters for \\cite command\\.

```
\RegisterCiteDelims{\langle modifier \rangle}{\langle cite \ command \rangle}
```

Register a pair of  $\langle modifier \rangle$  citation delimiters for  $\langle cite\ command \rangle$ . This command will define a delimiter wrapper command  $\mbox{\sc modifier} \rangle \langle cite\ command \rangle$  that places its argument between the opening delimiter  $\mbox{\sc modifier} \rangle \langle cite\ command \rangle \langle modifier \rangle \langle modif$ 

The styles of this bundle only use the values outer and inner for  $\langle modifier \rangle$ , but other values are possible. With outer and inner you can use \DeclareOuterCiteDelims or \DeclareInnerCiteDelims and friends to define the opening and closing delimiters, otherwise you need to define them manually.

All styles of biblatex-ext define the wrapper commands listed in table 2.

The default setup for ext-authoryear mirroring the standard authoryear is as follows.

```
\parencite setup of ext-authoryear

\DeclareOuterCiteDelims{parencite}{\bibopenparen}{\bibcloseparen}
\DeclareInnerCiteDelims{parencite}{}{}

lorem (Knuth 1984) ipsum (Sigfridsson and Ryde 1998)
```

Table 2: Delimiter wrappers defined by biblatex-ext

	Modifier			
Citation command	Outer	Inner		
\cite	\mkoutercitedelims	\mkinnercitedelims		
\parencite	\mkouterparencitedelims	\mkinnerparencitedelims		
\textcite	\mkoutertextcitedelims	\mkinnertextcitedelims		
\footcite	\mkouterfootcitedelims	\mkinnerfootcitedelims		
\supercite <sup>a</sup>	\mkoutersupercitedelims	_		
\bbx@xrefcite	\mkouterbbx@xrefcitedelims	\mkinnerbbx@xrefcitedelims		
'\bbx@introcite'	<u>_</u> b	\mkinnerbbx@introcitedelims		

<sup>&</sup>lt;sup>a</sup>If defined by the citation style.

```
\textcite setup of ext-authoryear

\DeclareOuterCiteDelims{textcite}{}}
\DeclareInnerCiteDelims{textcite}{\bibopenparen}{\bibcloseparen}

lorem Knuth (1984) ipsum Sigfridsson and Ryde (1998)
```

If you wanted \parencite of ext-authoryear to look like '[Sigfridsson and Worman (1998)]' you would use

```
\DeclareOuterCiteDelims{parencite}{\bibopenbracket}{\bibclosebracket} \DeclareInnerCiteDelims{parencite}{\bibopenparen}{\bibcloseparen} \Sigfridsson and Ryde (1998)] [Geer (1985); Worman (2002)] [Knuth (1984, 1986a,b)]
```

## 5.4. Selected bibliography macros

The following macros are defined in ext-standard.bbx and may make certain things easier to customise. Many of these macros are replacements for bare \printfield or \printlist in the bibliography drivers, or pack a frequently-used sequence of commands into one central place.

barevolume+volumes A bibliography macro to print the volume, part and volumes fields for @mvbook-, @book-and @inbook-like entry types. If maintitle is defined, the volume and part fields will be

<sup>&</sup>lt;sup>b</sup>Use the field format bbx@introcite instead, see section 4.2.

printed by maintitle+title or maintitle+booktitle instead.

```
Knuth, Donald E. (1984–1986). Computers & Typesetting. 5 vols. Reading, Mass.: Addison-Wesley, 1984–1986.
Matuz, Roger, ed. (1990). Contemporary Literary Criticism. Vol. 61. Detroit: Gale, 1990, pp. 204–208.
```

edition A bibliography macro to print the edition field, this avoids a direct \printfield{edition} in the bibliography drivers. This bibliography macro is particularly useful to suppress the edition field in its standard position to print it elsewhere without having to use \clearfield, \savefield and \restorefield.

```
Example use of the edition bibmacro for superscript edition before date
\renewbibmacro*{edition}{}
\DeclareFieldFormat{superedition}{\textsuperscript{#1}}
\newbibmacro*{superedition}{%
  \iffieldnums{edition}
    {\printfield[superedition]{edition}}
    {\printfield{edition}%
     \setunit{\addspace}}}
\renewcommand*{\pubdatedelim}{\addspace}
\renewcommand*{\locdatedelim}{\pubdatedelim}
\renewbibmacro*{pubinstorg+location+date}[1]{%
  \printlist{location}%
  \iflistundef{#1}
    {\setunit*{\locdatedelim}}
    {\setunit*{\locpubdelim}}%
  \printlist{#1}%
  \setunit*{\pubdatedelim}%
  \usebibmacro{superedition}%
  \usebibmacro{date}%
  \newunit}
```

Malinowski, Bronisław (1972). Argonauts of the Western Pacific. An account of native enterprise and adventure in the Archipelagoes of Melanesian New Guinea. London: Routledge and Kegan Paul <sup>8</sup>1972.

version Similar to the edition bibliography macro, version prints the version field, this avoids a direct \printfield{version} in the bibliography drivers.

pagetotal Similar to the edition bibliography macro, pagetotal prints the pagetotal field, this avoids a direct \printfield{pagetotal} in the bibliography drivers.

in:editor(+others) The bibliography macro to print the editor before the booktitle for @inbook, @incollection and @inproceedings when innamebeforetitle is set to true. The \printname uses the name format ineditor.

language A bibliography macro to print the language field, this avoids a direct \printlist{language} in the bibliography drivers.

note A bibliography macro to print the note field, this avoids a direct \printfield{note} in the bibliography drivers.

pubinstorg+location+date A general-purpose bibliography macro to catch publisher+location+date, institution+location+date and organization+location+date. This bibliography macro has one mandatory argument: the name of a list field, sensible values are publisher, institution and organization. By default the macro is defined and used as follows.

```
\newbibmacro*{pubinstorg+location+date}[1]{%
  \printlist{location}%
  \iflistundef{#1}
    {\setunit*{\locdatedelim}}
    {\setunit*{\locpubdelim}}%
  \printlist{#1}%
  \setunit*{\pubdatedelim}%
  \usebibmacro{date}%
  \newunit}

\renewbibmacro*{publisher+location+date}{%
  \usebibmacro{pubinstorg+location+date}{publisher}}

\renewbibmacro*{institution+location+date}{%
  \usebibmacro{pubinstorg+location+date}{%
  \usebibmacro{pubinstorg+location+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{\function+date}{
```

type+number A bibliography macro to print the type and number fields.

# 6. Tabular Bibliographies

An experimental addition to this bundle is the package biblatex-ext-tabular which allows you to typeset tabular (two-column) bibliographies. The package must be loaded after biblatex and has no further options.

```
\usepackage[\langle options \rangle] {biblatex}
...
\usepackage{biblatex-ext-tabular}
```

If it turns out that the tabular bibliography package is useful on its own, it may be split off from the rest of this bundle in the future. In that case the name biblatex-ext-tabular may be deprecated in favour of something more snappy. The old name should then continue to work, but you may have to install a new package to be able to use it.

The package biblatex-ext-tabular can be used independently of the styles provided in this bundle. But no matter what style you use, you will probably have to apply some tweaks here and there to make the output look acceptable.

The code for the tabular bibliographies is based on Audrey's<sup>23</sup> answer to a question<sup>24</sup> on T<sub>E</sub>X – ET<sub>E</sub>X Stack Exchange. The code has been modernised to keep in sync with changes to internal macros and modified to allow for slightly more flexible setups, so any bugs you find are mine and not Audrey's. Please report them via the channels mentioned above in section 1.6.

Before tabular bibliographies can be used, a suitable definition must be supplied with \defbibtabular.

```
\printbibtabular[\langle key=value, ... \rangle]
```

This commands prints a tabular bibliography. It accepts the same options as \printbibliography, but note that env must be a tabular bibliography declared with \defbibtabular. The default value for env is bibtabular.

Note that there is no default definition for the bibtabular environment, so you must define it with \defbibtabular before use. An error will be issued if you fail to provide a definition for bibtabular before you use \printbibtabular with the default env value and no bibliography will be printed.



 $\label{lem:defbibtabular} $$\defbibtabular{\langle name\rangle} {\langle begin\ code\rangle} {\langle end\ code\rangle} {\langle row\ code\rangle}$$$ 

This command defines a tabular bibliography. The  $\langle name \rangle$  is an identifier passed to the env option of  $\langle printbibtabular$  when selecting the environment. The  $\langle begin\ code \rangle$  is ETeX

<sup>23</sup>https://tex.stackexchange.com/users/4483/audrey

<sup>24</sup>https://tex.stackexchange.com/q/71088/35864

code to be executed at the beginning of the environment, usually it will begin a tabular environment. The  $\langle end\ code \rangle$  is executed at the end of the environment and would usually end the tabular environment. The  $\langle row\ code \rangle$  holds the code for one row in the tabular bibliography, it should have no more columns than ordered in  $\langle begin\ code \rangle$  and should end with  $\backslash \backslash$ .

Please keep in mind that the tabular bibliography is subject to all limitations of the particular tabular environment you decide to use.



Within the  $\langle row\ code \rangle$  argument the following macros are defined and can be used to typeset the result of bibliography macros. Each cell should normally be wrapped into exactly one of the following macros since they are responsible for providing the necessary entry data to the bibliography macros.

```
\left\langle code\right\rangle
```

Typesets  $\langle code \rangle$  with the entry data of the current entry.

#### $\plainlang{\langle code \rangle}$

Like  $\plain$ , but typesets (code) in the language of the current item if the language switching options are enabled.

### $\anchor{\langle code \rangle}$

Like \plain, but additionally sets a link anchor for the current entry. That link anchor is used when a citation links to the bibliography entry. There should only be one \anchor or \anchorlang per entry (and hence per row), and for proper linking there should be at least one. Usually \anchor or \anchorlang is the first cell in a row.

## $\anchorlang{\langle code \rangle}$

Like \anchor, but in the entry language like \plainlang.

### \driver{\langle precode \rangle}

Typesets the bibliography entry using the correct driver. This always uses the entry language if language switching is enabled. The  $\langle precode \rangle$  argument can be used to execute code before the driver is executed. Usually \driver would be issued in the last (and widest) cell in a row, duplicate information can be cleaned up with help of the  $\langle precode \rangle$  argument.

Recall that standard tabular can't break across pages, so you may want to give longtable a try. Additionally, the standard column specifiers l, r and c define flexible-sized columns which might not be appropriate here; p defines fixed-width columns but imposes justification, which does not look good if the columns are too narrow. You may want to look into fixed-width flush-left or flush-right columns<sup>25</sup>.

<sup>&</sup>lt;sup>25</sup>https://tex.stackexchange.com/q/12703/35864

The package also defines two helpful bibliography macros.

tabular:sortname Prints the labelname/sortname.

tabular:omitsortname Suppresses the labelname/sortname in the current group.

A simple example of a useful tabular bibliography setup is

```
Example document with tabular bibliography
\documentclass[british]{article}
\usepackage{babel}
\usepackage{csquotes}
                                                              Load biblatex as usual,
\usepackage[backend=biber, style=ext-authoryear]{biblatex}
                                                              then load biblatex-ext-
\usepackage{biblatex-ext-tabular}
                                                              tabular
\usepackage{longtable}
                                                                     Set up enhanced
\usepackage{array}
                                                                     table support as
\newcolumntype{L}[1]{%
                                                                     desired
  >{\raggedright\let\newline\\arraybackslash\hspace{0pt}}p{#1}}
\defbibtabular{bibtabular}
  {\setlength{\LTpre}{0pt}%
   \strut_{true} \
   \renewcommand*{\arraystretch}{2}%
   \begin{longtable}{%
     @{}
                                                      Set up a tabular bibliography
                                                      with \defbibtabular
     L{\dimexpr0.3\textwidth-\tabcolsep\relax}
     L{\dimexpr0.7\textwidth-\tabcolsep\relax}
     @{}}}
  {\end{longtable}}
  {\anchorlang{\usebibmacro{tabular:sortname}} &
   \driver{\usebibmacro{tabular:omitsortname}} \\}
\addbibresource{biblatex-examples.bib}
\begin{document}
Lorem \autocite{sigfridsson,nussbaum}
ipsum \autocite{geer}.
\printbibtabular
                     Print bibliography table with \printbibtabular
\end{document}
```

Geer, Ingrid de 'Earl, Saint, Bishop, Skald – and Music' (1985). 'The

Orkney Earldom of the Twelfth Century. A Musicological

Study'. PhD thesis. Uppsala: Uppsala Universitet.

Nussbaum, Martha Aristotle's 'De Motu Animalium' (1978). Princeton:

Princeton University Press.

Sigfridsson, Emma and

Ulf Ryde

'Comparison of methods for deriving atomic charges from the electrostatic potential and moments' (1998). In:

Journal of Computational Chemistry 19.4, pp. 377–395. DOI: 10.1002/(SICI)1096-987X(199803)19:4<377::

AID-JCC1>3.0.C0;2-P.

This defines a two-column bibliography where the first column shows the primary name associated with the work (the labelname/sortname) and the second colum shows the bibliography data with the primary name suppressed to avoid duplication. The anchor is set to the first column, so that a viewer jumps there if a link to the entry is followed.

For the common case of two-column tabular bibliographies there is a thin wrapper around \defbibtabular that might turn out a bit easier to use.

```
\defbibtabulartwocolumn{\langle name \rangle}{\langle begin\ code \rangle}{\langle end\ code \rangle}{\langle anchor\ code \rangle}{\langle driver\ precode \rangle}
```

This defines a two-column tabular bibliography environment with  $\langle name \rangle$ ,  $\langle begin\ code \rangle$  and  $\langle end\ code \rangle$  as for  $\backslash defbibtabular$ .

The first column is an  $\anchorlang$  column that executes  $\langle anchor code \rangle$ , the second column executes a pre-code and the bibliography driver.

```
 \begin{tabular}{l} $$ & {\langle begin\ code \rangle} {\langle end\ code \rangle} $$ & {\langle anchor\ code \rangle} {\langle driver\ precode \rangle} $$ \end{tabular}
```

is equivalent to

Using \defbibtabulartwocolumn the example from above could be written as

```
\documentclass[british]{article}
\usepackage{babel}
\usepackage{csquotes}
\usepackage[backend=biber, style=ext-authoryear]{biblatex}
\usepackage{biblatex-ext-tabular}
\usepackage{longtable}
\usepackage{array}
\newcolumntype{L}[1]{%
       \verb|\array| backslash\hspace{0pt}|p{\#1}|
\defbibtabulartwocolumn{bibtabular}
        {\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\en
           \setlength{\LTpost}{0pt}%
           \renewcommand*{\arraystretch}{2}%
           \begin{longtable}{%
                  L{\dimexpr0.3\textwidth-\tabcolsep\relax}
                  L{\dimexpr0.7\textwidth-\tabcolsep\relax}
                  @{}}}
       {\end{longtable}}
        {\usebibmacro{tabular:sortname}}
        {\usebibmacro{tabular:omitsortname}}
\addbibresource{biblatex-examples.bib}
 \begin{document}
 Lorem \autocite{sigfridsson,nussbaum}
ipsum \autocite{geer}.
\printbibtabular
 \end{document}
```

# 7. Open Access Symbols

The package biblatex-ext-oa was inspired by a question<sup>26</sup> by pluton<sup>27</sup> on TeX.SX about promoting open access works by adding a small open access symbol into the margin.

The package must be loaded after biblatex. It is not tied to use with styles of this bundle, though it cannot be guaranteed that everything will work out of the box with all other styles. The package works as expected with the standard styles and should work with most contributed styles at least to some extent. For the actual typesetting of the symbol biblatex-ext-oa patches the bibliography macro begentry to include a call to the bibliography macro oamark.

```
\usepackage[\langle biblatex options \rangle] \{ \text{biblatex} \\ \usepackage[\langle biblatex-ext-oa options \rangle] \} \{ \text{biblatex-ext-oa} \}
```

The package may load the support packages biblatex-ext-oa-doiapi, biblatex-ext-oasymb-pict2e, biblatex-ext-oasymb-l3draw and biblatex-ext-oasymb-tikz. The preferred way to use those packages is to have them loaded automatically via biblatex-ext-oa's package options. It should usually not be necessary to load any of these support packages directly with \usepackage, but it is possible to use them as stand-alone packages should the need arise in other situations.

Note that the macro \oasymbol must be defined and should contain an open access symbol that can be printed in the margin for the package biblatex-ext-oa to work properly. The package biblatex-ext-oa itself does not provide a definition for \oasymbol if the option symbolpackage is not used. So you should either set that option or define command \oasymbol yourself.



The package biblatex-ext-oa provides the following load-time options.

enable=true, false default: true

This option controls whether the package is only loaded (false) or loaded and active (true).

'Active' means that the initial state of the global bibliography option openaccess is auto and that useful default settings are applied for semi-automatic open access detection. These useful defaults include patches of the bibmacro begentry and, if doiapi is enabled, also doi+eprint+url.

If the package is loaded with enable set to false the global bibliography option openaccess will be set to false and no sensible defaults are defined for the semi-automatic open access detection.

<sup>26</sup>https://tex.stackexchange.com/q/459449/35864

<sup>27</sup>https://tex.stackexchange.com/users/371/pluton

Load one of the available open access symbol support packages.

false Don't load any symbol package.

Since biblatex-ext-oa does not provide a default definition for \oasymbol, you will have to make sure to define that command yourself if you don't load any of the symbol packages.



default: false

pict2e Load biblatex-ext-oasymb-pict2e to provide a definition for \oasymbol drawn in pict2e. See sections 7.3 and 7.3.1.

l3draw Load biblatex-ext-oasymb-l3draw to provide a definition for \oasymbol drawn in l3draw. See sections 7.3 and 7.3.3.

Please keep in mind that l3draw is still considered experimental.



tikz Load biblatex-ext-oasymb-tikz to provide a definition for \oasymbol that is drawn with PGF/TikZ. See sections 7.3 and 7.3.2.

The package biblatex-ext-oasymb-tikz will load PGF/TikZ.



## $symbol = \langle symbol \rangle$

Set \oasymbol to output the symbol identified as  $\langle symbol \rangle$ . This option is passed on to the  $\langle symbolpackage \rangle$  selected with the symbolpackage option. Possible values can be found in the respective subsections of section 7.3.

Note that this option is only available if the option symbolpackage has been set to a valid value different from false or one of the open access symbol packages has been loaded manually (the latter is usually not recommended, the option symbolpackage is the preferred way to load those packages).



default: false

### doiapi=true, false

Whether or not to load the support package biblatex-ext-oa-doiapi that provides a Lua module to query open access information from Unpaywall<sup>28</sup> via the DOI of an entry.

<sup>&</sup>lt;sup>28</sup>https://unpaywall.org/

The package biblatex-ext-oa-doiapi and thus this option can only be used with LuaFTeX.



The following macros in biblatex-ext-oa are also of interest.

#### $\LoadOASymbolPackage[\langle symbol \rangle] \{\langle package \rangle\}$

This command provides an alternative to symbolpackage for loading a symbol package. The mandatory argument  $\langle package \rangle$  can take the same values as the symbolpackage option. The optional argument  $\langle symbol \rangle$  has the same meaning as the possible values for the symbol package option.

The command can only be used in the preamble. It may only be used once and only if none of the symbol packages have been loaded either explicitly or via the symbol package option.

This command is related to \DefineOASymbol (see section 7.3).

\oasymbol This commands holds the little symbol that is going to be printed in the margin to mark open access publications.

This command is initially undefined and must be defined for the package to work. One way of giving this command a useful definition is via the symbol package option of biblatexext-oa.

An entry will be marked as open access if it has a 'best open access URL'. This best open access URL will be determined according to the rules set out by the openaccess bibliography option (see section 7.1) in the \AtDataInput hook, it is stored in the newly defined field bestoaurl.

### bestoaurl field (literal)

This field holds the 'best open access URL' as determined by the open access detection outlined in section 7.1.

Note that this field need not hold the URL in expanded form.

Depending on the load-time options the package may define the following two bibliography macros.

oamark Prints the open access symbol if a best open access URL is available. This bibliography macro is available if the package is loaded with enable set to true

api:bestoaurl Display the best open access URL according to the Unpaywall API. The URL is not shown if it coincides with the DOI, the check for that is performed by \OpenaccessURLisDOI (see section 7.2). This macro is only available if both the enable and the doiapi options are set to true.

This macro is useful in connection with the Unpaywall API since the best open access URL may not be amongst the fields that are already displayed in the entry.

With enable set to true the package will furthermore patch the bibliography macro begentry to execute the bibliography macro oamark. If additionally doiapi is true, the bibliography macro doi+eprint+url will be patched to include a call to api:bestoaurl. Please keep that in mind should you need to redefine begentry or doi+eprint+url.



# 7.1. Open access detection

The heart of the package biblatex-ext-oa is the bibliography option openaccess, which can be set globally, per type or per entry.

A longer example document exploring various aspects of open access detection can be found at https://github.com/moewew/biblatex-ext/blob/release/oaslinks.tex.

openaccess=auto, doiapi, forcedoiapi, true, false, none,  $\langle open~access~field \rangle \\$  default: auto (none)

This option controls how the best open access URL is detected. The initial value is auto unless the package is loaded with the enable option set to false in which case the initial value changes to none.

All of the following values are valid at all three levels (global, per-type and per-entry), but not all options may be useful at all available levels.

auto Use a semi-automatic heuristic to find the best open access URL.

Assume that all known 'open access fields' contain an open access URL.

Note that an entry still needs at least one field that open access field for the

open access symbol to show up.

none Assume that no known 'open access field' contains an open access URL.

The value none may be used to disable the openaccess feature.

doiapi Use API queries from the biblatex-ext-oa-doiapi package to determine the best open access link from the DOI.

This option requires that the doiapi package option be set to true and only works with LualFTEX. Furthermore it needs a DOI in the doi field. If the doi field is empty, this option falls back to auto.



onlydoiapi Like doiapi, but does not fall back to auto in case no DOI is present.

forcedoiapi Like doiapi, but overrides more specific option levels that would say otherwise.

By default more specific options take precedence over more general options, that means that a per-entry option trumps a per-type option, which in turn overrides the global setting. If forcedoiapi is set it will prevail over more specific options that would say otherwise. A common use case is to override per-entry options with a global forcedoiapi.

forceonlydoiapi A combination of onlydoiapi and forcedoiapi. This options overrides all more specific values and does not fall back to auto in case the DOI is not given.

true An alias for all.
false An alias for none.

*⟨open access field⟩* Specifies that the open access version is given by *⟨open access field⟩*. This value would normally be used only on a per-entry level.

Any field for which \DeclareOpenAccessFieldUrl has declared a URL specification is a valid 'open access field'.

The heuristics to find the best open access link are governed by the following commands and rely on information present in the .bib file (ideally in field annotations).

```
\label{lem:decomposition} $$ \end{are Open Access Field Url $$ (open ness) $$ {\langle field \rangle } {\langle url spec \rangle }$ $$
```

Declares  $\langle field \rangle$  to be an 'open access field'. The code for  $\langle url\ spec \rangle$  should expand to the full URL under which the entry can be accessed. The optional  $\langle openness \rangle$  argument indicates whether the URL will always be open access (always) or whether it is only open access under certain conditions (conditional); if it is not present conditional is assumed.

If the package is loaded with enable set to true, the following declarations are active.

```
\DeclareOpenAccessFieldUrl{url}{\thefield{url}}
\DeclareOpenAccessFieldUrl{doi}{https://doi.org/\thefield{doi}}
```

### $\UndeclareOpenAccessFieldUrl{\langle field \rangle}$

Disable \(\langle field \rangle\) as 'open access field' and remove its mapping to a URL.

```
\label{lem:decomposition} $$ \end{are Open Access Eprint Url [$\langle open ness \rangle] } {\langle url spec \rangle} $$
```

Declares the eprinttype  $\langle eprinttype \rangle$  to be an 'open access eprint type'. The code for  $\langle url\ spec \rangle$  should expand to the full URL under which the entry can be accessed.

The optional *(openness)* argument indicates whether the URL will always be open access (always) or whether it is only open access under certain conditions (conditional); if it is not present conditional is assumed.

The always decision can be overridden on a per-entry basis by giving the field annotation closedaccess. If a field has openness conditional it is only considered for a particular entry if the field annotation openaccess is set.

If the package is loaded with enable set to true, the following declarations are active.

```
\DeclareOpenAccessEprintUrl{jstor}{%
  http://www.jstor.org/stable/\thefield{eprint}}
\DeclareOpenAccessEprintUrl{hdl}{%
  http://hdl.handle.net/\thefield{eprint}}
\DeclareOpenAccessEprintUrl{pubmed}{%
  http://www.ncbi.nlm.nih.gov/pubmed/\thefield{eprint}}
\DeclareOpenAccessEprintUrl[always]{arxiv}{%
  https://arxiv.org/\abx@arxivpath/\thefield{eprint}}
```

Since articles on the arXiv are always open access, the declaration for arxiv features the optional *(openness)* argument always.

```
\verb|\DeclareOpenAccessEprintAlias|{\langle alias\rangle}|{\langle eprinttype\rangle}|
```

Handle the open access URL detection for  $\langle alias \rangle$  exactly as that for  $\langle eprinttype \rangle$ .

If the package is loaded with enable set to true, the following declarations are active.

```
\DeclareOpenAccessEprintAlias{JSTOR}{jstor}
\DeclareOpenAccessEprintAlias{HDL}{hdl}
\DeclareOpenAccessEprintAlias{PubMed}{pubmed}
\DeclareOpenAccessEprintAlias{arXiv}{arxiv}
```

### \UndeclareOpenAccessEprintUrl{\langle eprinttype \rangle}

Disable (eprinttype) as 'open access eprint type' and remove its mapping to a URL.

### \DeclareOpenAccessUrlFieldPriority{\(\( fields \)\)}

Define the priority order of 'open access fields' if several fields contain valid open access URLs. The fields processed in the given order and the last field prevails, meaning that fields later in the list have higher priority.

The default definition if the package is active is

```
\DeclareOpenAccessUrlFieldPriority{url,eprint,doi}
```

which means that the DOI is given preference over eprints, which in turn prevail over the url field.

The auto detection works as follows.

- The best known open access URL is cleared.
- For each non-empty field listed in \DeclareOpenAccessUrlFieldPriority the URL specification is obtained.
  - If the field has \( \lambda openness \rangle \) always, the best known open access URL is updated with the new value, unless the field has been explicitly marked as closed acces with the field annotation closedaccess.
  - If the field has \( \lambda openness \rangle \) conditional, the best known open access URL is updated with the new value if the field has been marked with the field annotation openaccess.

For auto-detection, an open access article with DOI would ideally use the field annotation openaccess ({doi+an = {=openaccess},).

Preprints on the arXiv, on the other hand, need no field annotation, because they are always open access.

Cipriani, Alessandra, Rajat Subhra Hazra and Wioletta M. Ruszel (2018). 'Scaling limit of the odometer in divisible sandpiles'. In: *Probability Theory and Related Fields* 172.3, pp. 829–868. DOI: 10.1007/s00440-017-0821-x.

Meckes, Elizabeth and Kathryn Stewart (20th Nov. 2018). *On the eigenvalues of truncations of random unitary matrices.* arXiv: 1811.08340 [math.PR].

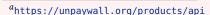
Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395. DOI: 10.1002/(SICI)1096-987X(199803)19: 4<377::AID-JCC1>3.0.C0;2-P.

If the openaccess option is set to one specific field only, only that field will be taken into consideration and it will be assumed that the field contains an open access link unless the field annotation closedaccess is set. In particular the  $\langle openness \rangle$  of each field does not play a role.

# 7.2. Open access detection with the Unpaywall API

Inspired by Eric Marsden's<sup>29</sup> answer to the open access symbol question on TeX.SX, the package biblatex-ext-oa-doiapi, which can be loaded via the doiapi option of biblatex-ext-oa, provides means to automatically find the best open access link to a given article via its DOI by querying the Unpaywall API<sup>30</sup>.

This package can only be used with Lua $\LaTeX$  and needs online access. Furthermore the Unpaywall API requires an email address and asks to limit requests to 100,000 calls per day<sup>a</sup>.





To avoid too many calls to the API, the package caches its information in the temporary .oai file. It is safe to delete that file at any point, but if you do so the next LuaLFTEX run may take a while, because all information has to be retrieved from the APIs. To avoid old information sticking around for too long you can set a cache expiration period.

# $\SetDOIAPIMail{\langle email \rangle}$

Define the email address that is going to be used for API queries that require an email.

 $<sup>^{29} {\</sup>rm https://tex.stackexchange.com/users/29621/eric-marsden}$ 

<sup>30</sup>https://unpaywall.org/

There is no predefined default email address. If the package is loaded and no email was provided until the beginning of the document (as tested in an \AtEndPreamble hook) you will receive a warning. A fatal error will be thrown if you try to query the Unpaywall database without an email address.



## $\SetDOIAPICacheExpiration{\langle days \rangle}$

Set the expiration period for the cache. If the information for an entry in the cache is older than  $\langle days \rangle$  days it will be queried again. The default expiration period is seven days.

 $\Is Open access {\langle DOI \rangle} {\langle true \rangle} {\langle false \rangle}$ 

Expands to  $\langle true \rangle$  if the DOI is an open access work according to the Unpaywall database and to  $\langle false \rangle$  otherwise.

 $\GetOpenaccessURLWrapped{\langle DOI \rangle}$ 

Obtain the best open access URL as returned by the Unpaywall API wrapped in the \url macro.

 $\parbox{OpenaccessURLisDOI}{\langle DOI \rangle}{\langle true \rangle}{\langle false \rangle}$ 

Expands to  $\langle true \rangle$  if the best open access URL as returned by the Unpaywall API is the DOI and to  $\langle false \rangle$  otherwise.

## 7.3. Open access symbols

Currently, this bundle offers three methods of drawing the open access symbols. Each method is packed up in a little sub-package, end users are not expected to load these packages manually, instead they should use the option symbol package of biblatex-ext-oa.

The package biblatex-ext-oasymb-pict2e draws the symbols using pict2e's picture environment. The package biblatex-ext-oasymb-tikz uses PGF/TikZ's tikzpicture. The package biblatex-ext-oasymb-l3draw finally uses LATEX3's l3draw package. The main purpose of these packages is to define the macro \oasymbol for use with biblatex-ext-oa.

All packages define a similar set of macros, so they are not indended to be loaded together. If used as stand-alone packages, all packages only have one option.

symbol=plos, oanet default: plos

This options determines which of the two available symbols is going to be used for \oasymbol.

The possible values are

plos Use the open access symbol by PLOS | Public Library of Science<sup>31</sup> **ô**.

The drawing is based on a CC0<sup>32</sup> work by PLoS (now PLOS | Public Library of Science), modified by Wikipedia users Nina, Beao, and JakobVoss<sup>33</sup>.

oanet Use the open access symbol by open-access.net $^{34}$   $\bigcirc$ 0.

The drawing is based on the logo uploaded to Wikimedia<sup>35</sup> and originally from open-access.net<sup>36</sup>. Wikimedia claims the content does not meet the threshold of originality for copyright protection. Even if that is not the case, the legal notices on open-access.net<sup>37</sup> place all contents under a Creative Commons 4.0 Attribution International (CC BY 4.0) Licence<sup>38</sup> unless stated otherwise. The logo designer is listed as *Medien + Design, Center für Digitale Systeme, Kompetenzzentrum e-Learning / Multimedia, Freie Universität Berlin.* 

There is no implication that the open-access.net logo is not covered by the CC BY 4.0 terms. Indeed, the German 'about us' page explicitly states 'Das Logo der Informationsplattform darf nachgenutzt werden, gerne mit einem Link zu open-access.net.'<sup>39</sup> The English version has 'The logo of the information platform may be reused with a link to open-access.net'<sup>40</sup>. While the German version leaves some leeway as to whether or not a link is required as attribution, the English version seems more explicit.

That means that if you do not follow Wikimedia in considering the symbol not protected by copyright in your – and all other relevant jurisdictions – due to its failure to cross the threshold of originality, you should probably treat it as CC BY 4.0 and treat the link to https://open-access.net as attribution requested by the Licensor according to Section 3(a)(1)(A) of the license. If you can't reasonably meet the requirements of the license in your work, you may want to consider using the PLOS logo, which is licensed under CC0.

Apart from \oasymbol the packages only define one other user-level command.

# $\DefineOASymbol[\langle symbol \rangle]$

This command redefines \oasymbol to point to a different version of the symbol. The possible values for the  $\langle symbol \rangle$  argument are the values of the symbol option.

```
31 https://www.plos.org/
32 https://creativecommons.org/publicdomain/zero/1.0/deed.en
33 https://commons.wikimedia.org/wiki/File:Open_Access_logo_PLoS_white.svg
34 https://open-access.net/
35 https://commons.wikimedia.org/wiki/File:Open_access.svg
36 https://open-access.net/fileadmin/logos/oa.svg
37 https://open-access.net/impressum
38 https://creativecommons.org/licenses/by/4.0/
39 https://open-access.net/ueber-uns/
40 https://open-access.net/en/about-us/
```

#### 7.3.1. Open access symbols with pict2e

The main purpose of the package biblatex-ext-oasymb-pict2e is to define the command \oasymbol. As mentioned above, usually this package is not going to be loaded as a standalone package, instead it is loaded via biblatex-ext-oa.

The package requires and loads the packages pict2e<sup>41</sup> by Hubert Gäßlein, Rolf Niepraschk and Josef Tkadlec as well as xcolor<sup>42</sup> by Uwe Kern.

If used as a stand-alone package, biblatex-ext-oasymb-pict2e has one load-time option, namely symbol, and defines one command besides \oasymbol, namely \DefineOASymbol. The option determines whether \oasymbol is defined to display the PLOS symbol (a) or the open-access.net symbol (a). The command \DefineOASymbol can be used to change the definition of \oasymbol on the fly.

# 7.3.2. Open access symbols with TikZ

The main purpose of the package biblatex-ext-oasymb-tikz is to define the command \oasymbol. As mentioned above, usually this package is not going to be loaded as a standalone package, instead it is loaded via biblatex-ext-oa.

This package requires and loads the package tikz<sup>43</sup> by Till Tantau as well as all its dependencies.

If used as a stand-alone package, biblatex-ext-oasymb-tikz has one load-time option, namely symbol, and defines one command besides \oasymbol, namely \DefineOASymbol. The option determines whether \oasymbol is defined to display the PLOS symbol (a) or the open-access.net symbol (a). The command \DefineOASymbol can be used to change the definition of \oasymbol on the fly.

This package used to be called biblatex-ext-oa-tikzsymbols, for consistency reasons it has been renamed to biblatex-ext-oasymb-tikz.

The command \DefineTikZOASymbol has been renamed to the more generic \DefineOA-Symbol. Backwards compatibility code for that change is in place.

### 7.3.3. Open access symbols with 13draw

The main purpose of the package biblatex-ext-oasymb-l3draw is to define the command \oasymbol. As mentioned above, usually this package is not going to be loaded as a standalone package, instead it is loaded via biblatex-ext-oa.

This package requires and loads the full force of LTEX3. Aside from the main package expl3<sup>44</sup> it loads xparse<sup>45</sup>, and l3keys2e<sup>46</sup>. Drawing is performed with the (still experi-

<sup>41</sup>https://ctan.org/pkg/pict2e

<sup>42</sup>https://ctan.org/pkg/xcolor

<sup>43</sup>https://ctan.org/pkg/pgf

<sup>44</sup>https://ctan.org/pkg/expl3

<sup>45</sup>https://ctan.org/pkg/xparse

<sup>46</sup>https://ctan.org/pkg/l3keys2e

mental)  $13draw^{47}$  and  $13color^{48}$  packages. The code works best with version 2020-08-07 or above of 13draw/13color.

If used as a stand-alone package, biblatex-ext-oasymb-l3draw has one load-time option, namely symbol, and defines one command besides \oasymbol, namely \DefineOASymbol. The option determines whether \oasymbol is defined to display the PLOS symbol (a) or the open-access.net symbol (a). The command \DefineOASymbol can be used to change the definition of \oasymbol on the fly.

<sup>47</sup>https://ctan.org/pkg/l3experimental

<sup>48</sup>https://ctan.org/pkg/l3experimental

# 8. Revision History

0.8g 2020-08-09

The GitHub repository of this project uses release tags, so you can compare the changes in source code there.  $^{49}$  See also CHANGES.md.

The numbers on the right indicate the relevant section of the manual.

Synce	ed biblatex-ext-oasymb-l3draw with 2020-08-07 l3color/l3draw changes.	7.3.3
0.8f	2020-05-09	

0.81	2020-05-09
Fixed	inner cite delimiters for \footcitetext
0.8e	2020-05-05
Fixed	introcite definition for ext-numeric-comp
Fixed	issue with labelprefix in \printbibtabular 6
0.8d	2020-03-15
Fixed	issue with tabular:sortname
0.8c	2019-11-30
Stopp	ed querying https://doi.org API for DOI verification
0.8b	2019-11-01
Fixed	bug in ext-verbose-trad2
0.8a	2019-10-31
Fixed	default value of \servoldelim
Fixed	bug in ext-authoryear-tiecomp
0.8	2019-08-25
Added	d \AtIntrocite
Requi	re biblatex v3.13 (2010/08/17)
0.7a	2019-04-04
Fixed	bug in the env option of \printbibtabular 6

<sup>49</sup>https://github.com/moewew/biblatex-ext/compare/

0.7 2019-02-08
Added outer citation delimiters for \supercite
Added biblatex-ext-oasymb-pict2e
Added biblatex-ext-oasymb-l3draw
Renamed biblatex-ext-oa-tikzsymbols to biblatex-ext-oasymb-tikz 7.3.2
Deprecated option tikzsymbol of biblatex-ext-oa in favour of symbolpackage and symbol
Renamed and generalised \DefineTikZOASymbol to \DefineOASymbol 7.3
Renamed and generalised \LoadTikZOASymbol to \LoadOASymbolPackage 7
0.6b 2019-01-11
Fixed issue loading socket.url module in biblatex-ext-oa-doiapi 7.2
0.6a 2019-01-04
Minor improvements for biblatex-ext-oa
0.6 2018-11-23
Require biblatex 3.12
Made dashed and introcite options available on a per-entry and per-type basis 4.2
Added \titleaddonpunct
Added biblatex-ext-oa package for open access detection and symbols 7
0.5a 2018-10-09
Fixed a bug with \footcites and \footcitetexts in ext-authoryear
0.5 2018-10-02
New ext-authoryear-*ecomp style subfamily
Added outer cite delimiters for \footcite
Added experimental tabular bibliography
0.4 2018-06-10
Renamed \DeclareOuterCiteDelim and friends to \DeclareOuterCiteDelims 5.3
Added \RegisterCiteDelims
Renamed 'virtual' cite command \bbx:introcite to \bbx@introcite 4.2
Renamed citainyraf to citayraf

### 0.3 2018-06-04

$Added\ title case : title\ field\ formats \\ \$			
Added bbx:introcite:plain:keeprelated toggle			
$Added \verb \jourvoldelim , \verb \jourserdelim  and \verb \servoldelim $			
Improve documentation			
0.2 2018-03-28			
Rework lengths for introcite=label			
Fixed meaning of \maintitletitledelim $\dots \dots \dots$			
Added \voltitledelim			
0.1a 2018-03-20			
Fixed inner citation delimiters for ext-authoryear, ext-authortitle and their -ibid versions			
Fixed \smartcite delimiters			
0.1 2018-03-18			
First public release			

# **Example References**

- Cipriani, Alessandra, Rajat Subhra Hazra and Wioletta M. Ruszel (2018). 'Scaling limit of the odometer in divisible sandpiles'. In: *Probability Theory and Related Fields* 172.3, pp. 829–868. DOI: 10.1007/s00440-017-0821-x.
- Coleridge, Samuel Taylor (1983). *The collected works of Samuel Taylor Coleridge*. Vol. 7.2: *Biographia literaria, or Biographical sketches of my literary life and opinions*. Ed. by Kathleen Coburn, James Engell and W. Jackson Bate. Bollingen Series 75. London: Routledge and Kegan Paul.
- Gaonkar, Dilip Parameshwar, ed. (2001a). *Alternative Modernities*. Durham and London: Duke University Press. ISBN: 0-822-32714-7.
- (2001b). 'On Alternative Modernities'. In: *Alternative Modernities*. Ed. by Dilip Parameshwar Gaonkar. Durham and London: Duke University Press, pp. 1–23.
   ISBN: 0-822-32714-7.
- Geer, Ingrid de (1985). 'Earl, Saint, Bishop, Skald and Music. The Orkney Earldom of the Twelfth Century. A Musicological Study'. PhD thesis. Uppsala: Uppsala Universitet.
- Goossens, Michel, Frank Mittelbach and Alexander Samarin (1994). *The LaTeX Companion*. 1st ed. Reading, Mass.: Addison-Wesley. 528 pp.

- Jaffé, Philipp, ed. (1885–1888). Regesta Pontificum Romanorum ab condita ecclesia ad annum post Christum natum MCXCVIII. Red. by Samuel Loewenfeld, Ferdinand Kaltenbrunner and Paul Ewald. 2nd ed. 2 vols. Leipzig.
- Knuth, Donald E. (1984–1986). *Computers & Typesetting*. 5 vols. Reading, Mass.: Addison-Wesley.
- (1984). Computers & Typesetting. Vol. A: The TEXbook. Reading, Mass.: Addison-Wesley.
- (1986a). Computers & Typesetting. Vol. B: TeX: The Program. Reading, Mass.: Addison-Wesley.
- (1986b). *Computers & Typesetting*. Vol. C: *The METAFONTbook*. Reading, Mass.: Addison-Wesley.
- (1986c). Computers & Typesetting. Vol. D: METAFONT: The Program. Reading, Mass.: Addison-Wesley.
- Malinowski, Bronisław (1972). Argonauts of the Western Pacific. An account of native enterprise and adventure in the Archipelagoes of Melanesian New Guinea. 8th ed. London: Routledge and Kegan Paul.
- Matuz, Roger, ed. (1990). *Contemporary Literary Criticism*. Vol. 61. Detroit: Gale, pp. 204–208.
- Meckes, Elizabeth and Kathryn Stewart (20th Nov. 2018). *On the eigenvalues of 6 truncations of random unitary matrices.* arXiv: 1811.08340 [math.PR].
- Moore, Gordon E. (1965). 'Cramming more components onto integrated circuits'. In: *Electronics* 38.8, pp. 114–117.
- Nussbaum, Martha (1978). *Aristotle's 'De Motu Animalium'*. Princeton: Princeton University Press.
- Pines, Shlomo (1979). 'The Limitations of Human Knowledge According to Al-Farabi, ibn Bajja, and Maimonides'. In: *Studies in Medieval Jewish History and Literature*. Ed. by Isadore Twersky. Cambridge, Mass.: Harvard University Press, pp. 82–109.
- Reese, Trevor R. (1958). 'Georgia in Anglo-Spanish Diplomacy, 1736–1739'. In: *William and Mary Quarterly*. 3rd ser. 15, pp. 168–190.
- Salam, Abdus (1968). 'Weak and Electromagnetic Interactions'. In: *Elementary particle theory. Relativistic groups and analyticity.* Proceedings of the Eighth Nobel Symposium (Aspenäsgarden, Lerum, 19th–25th May 1968). Ed. by Nils Svartholm. Stockholm: Almquist & Wiksell, pp. 367–377.
- Shore, Bradd (Mar. 1991). 'Twice-Born, Once Conceived. Meaning Construction and Cultural Cognition'. In: *American Anthropologist*. New ser. 93.1, pp. 9–27.
- Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic charges from the electrostatic potential and moments'. In: *Journal of Computational Chemistry* 19.4, pp. 377–395. DOI: 10.1002/(SICI)1096-987X(199803)19: 4<377::AID-JCC1>3.0.C0;2-P.

- Vizedom, Monika B. and Gabrielle L. Caffee, trans. (1960). *The Rites of Passage*. University of Chicago Press. Trans. of Arnold van Gennep. *Les rites de passage*. Paris: Nourry, 1909.
- Westfahl, Gary, ed. (2000a). *Space and Beyond. The Frontier Theme in Science Fiction.* Westport, Conn. and London: Greenwood.
- (2000b). 'The True Frontier. Confronting and Avoiding the Realities of Space in American Science Fiction Films'. In: *Space and Beyond. The Frontier Theme in Science Fiction*. Ed. by Gary Westfahl. Westport, Conn. and London: Greenwood, pp. 55–65.
- Worman, Nancy (2002). *The Cast of Character. Style in Greek Literature.* Austin: University of Texas Press.

# A. Punctuation Commands in Use

The following example bibliography shows some common punctuation commands in use. Commands provided by standard biblatex are marked in \italics, new commands defined by biblatex-ext are in \bold and linked to their documentation.

```
Punctuation and delimiters (defined by standard biblatex and biblatex-ext)
                        \nametitledelim
\nameyeardelim \
  Geer, Ingrid de (1985)! 'Earl, Saint, Bishop, Skald – and Music. The Orkney Earldom
     of the Twelfth Century. A Musicological Study'. PhD thesis. Uppsala: Uppsala
     Universitet.
\multinamedelim -
  Goossens, Michel, Frank Mittelbach and Alexander Samarin (1994). The LaTeX Com-
     panion. 1st ed. Reading, Mass.; Addison-Wesley, 1994. 528 pp.
                                                   \label{locpub} \
  Knuth, Donald E. (1984). Computers & Typesetting. Vol. A: The TEX book. Reading, Mass.: Addison-Wesley. 1984.
     Mass.: Addison-Wesley, 1984.
                           \maintitletitledelim
  Moore, Gordon E. (1965). 'Cramming more components onto integrated circuits'. In:
     Electronics 38.8, pp. 114-117.
                                                                 \intitlepunct —
 \bibpagespunct →
  Sigfridsson, Emma and Ulf Ryde (1998). 'Comparison of methods for deriving atomic
     charges from the electrostatic potential and moments'. In: Journal of Computa-
    tional Chemistry 19.4 (1998), pp. 377-395.

\jourvoldelim \frac{1}{2} \volnumdelim
                                             \translatortypedelim
  Vizedom, Monika B. and Gabrielle L. Cafee, trans. (1960). The Rites of Passage. Uni-
     versity of Chicago Press, Trans. of Arnold van Gennep. Les rites de passage. Paris:
                            └── \begrelateddelim
     Nourry, 1909.
                 Westfahl, Gary, ed. (2000a). Space and Beyond. The Frontier Theme in Science Fiction,
                                                        \newunitpunct {\cal J}
     Westport, Conn. and London: Greenwood, 2000.
  \(\frac{1}{2000b}\). 'The True Frontier! Confronting and Avoiding the Realities of Space
     in American Science Fiction Films'. In: Space and Beyond. The Frontier Theme in
     Science Fiction. Ed. by Gary Westfahl. Westport, Conn. and London: Greenwood,
     2000, pp. 55-65.
```