

Author Submission Guide for Annual Reviews Journals: Setting Up Your LaTeX Files

1. INTRODUCTION

This is a guide for authors using LaTeX to prepare their submission to Annual Reviews. These instructions are meant as a supplement to the LaTeX manual, and give only a brief introduction to using the LaTeX document preparation system and address issues specific to Annual Reviews' style.

The following is a brief description of the files used for preparing articles for submission to Annual Reviews:

ar-1col.cls: This is the style file used to create the article. The naming convention and usage of commands closely follow the standard style file **article.cls**, referred to in the LaTeX manual.

ar-style2.bst: This file is used to create the bibliography, which is Harvard Style (not numbered) and does not include titles.

Template-for-Authors.2.tex: This file can be used as a starting point for preparing an article. **Template-for-Authors.2.tex** contains common commands laid out in a typical order for an Annual Reviews manuscript. Authors can simply type in their article contents between the tags.

Note: Authors are requested not to modify any of these files, in any way, for their use or for distribution, under their original name. However, they can be modified under a different name for use by the authors. For example, the file **Template-for-Authors.2.tex** should be renamed before beginning to edit.

Use of LaTeX defaults will result in a uniform layout and font selection. Do not make ad hoc changes to these. Also avoid use of direct formatting unless necessary.

1.1. Introduction to LaTeX

LaTeX is constructed as a series of macros on top of the TeX typesetting program. LaTeX adds to TeX a collection of facilities which simplify typesetting for authors by allowing them to concentrate on the logical structure of the document rather than its visual layout. Careful use of the LaTeX mark-up philosophy results in a uniform layout rather than the ad hoc results of some word-processing systems. Authors are advised to let the defaults control font selection.

The LaTeX system provides a consistent and comprehensive document preparation interface. Among other things, LaTeX can automatically number list entries, equations, figures, tables, and footnotes, as well as sections and subsections. With this numbering system, bibliographic citations, page references, and cross references to any other numbered entity (e.g., sections, equations, and figures) are straightforward.

1.2. The AR Document Class

The use of LaTeX document classes allows a simple change of class to transform the appearance of your document. The `ar-1col` class file preserves the standard LaTeX interface such that any document that can be produced using the standard LaTeX `article` class can also be produced with the `ar-1col` class files.

Author should submit a PDF along with the LaTeX files required for their manuscript. Note that the layout of the LaTeX-generated PDF is NOT the final typeset article. For this reason, we ask you to ignore details such as slightly long lines, page stretching, or figures falling out of synchronization because these details will be dealt with when the article is prepared for publication.

Use symbolic references (`\ref`) in order to protect against reference reordering during revision.

2. USING THE AR CLASS FILE

If the file `ar-1col.cls` is not already in the appropriate system directory for LaTeX files, either place the file there or copy it to your working directory. The AR document class is implemented as a complete class, *not* as a document style option. In order to use the AR document class, replace `article` with `ar-1col.cls` in the `\documentclass` command at the beginning of your document:

```
\documentclass{article}
```

is replaced by

```
\documentclass{ar-1col}
```

In general, the following standard document style options should *not* be used with the AR class file:

1. `10pt`, `11pt`, `12pt` — unavailable;
2. `twoside` (no associated style file) — `twoside` is the default;
3. `fleqn`, `leqno`, `titlepage` — should not be used.

Because we need to have an accurate estimate of the final typeset article length following submission, no changes should be made to modify the font, size, spacing, or margins of any of the text elements in the article (including the main text, figure captions, and tables).

2.1. Additional Document Class Options

Place any additional command definitions at the very start of the LaTeX file, before the `\begin{document}`. For example, user-defined `\def` and `\newcommand` commands that define macros for technical expressions should be placed here. Other author-defined macros should be kept to a minimum.

The commands that differ from the standard LaTeX interface, or that are provided in addition to the standard interface, are explained in this guide. This guide is not a substitute for the LaTeX manual itself. Authors planning to submit their reviews in LaTeX are advised to use `ar-1col.cls`.

3. ARTICLE FEATURES AND FORMATTING

In addition to all the standard LaTeX design elements, the `ar-1col` class file includes the following features. Authors should leave these commands empty when submitting their articles; the Production Editor will add the correct information.

1. Use the `\jname{...}` command for journal name.
2. Use the `\jvol{...}` command for volume number.
3. Use the `\jyear{...}` command for year.
4. Use the `\doi{...}` command for DOI number.
5. Use the `\firstpagenote{...}` command to place note on first page under DOI/copyright info.
6. Use the `\tableofcontents` command to generate a table of contents if desired. (Note, however, that only a subset of Annual Reviews journals will ultimately include a table of contents in the final typeset article.)

In general, once you have used the additional `ar-1col.cls` features in your document, do not process it with a standard LaTeX class file (e.g., `article.cls`).

3.1. Titles, Author Name(s), and Affiliation(s)

The title of the article, author name(s), and affiliation(s) are used at the beginning of the article for the main title. These can be produced using the following code:

```
\title{This is an example of an article title}

\author{Author One,$^1$ Author Two,$^2$ and Author Three$^3$}
\affil{$^1$Author's Affiliation}
\affil{$^2$Author's Affiliation}
\affil{$^3$Author's Affiliation}}
```

3.2. Abstracts and Keywords

At the beginning of your article, the title should be generated in the usual way using the `\maketitle` command. The abstract should be enclosed within an `abstract` environment, followed by the keywords enclosed in a `keywords` environment. These can be produced using the following code:

```
\begin{abstract}
This guide is for authors who are preparing papers for Annual Reviews
using the LaTeX document preparation system and the {\tt AR} class file.
\end{abstract}

\begin{keywords}
marmoset, myelinated and nonmyelinated nerve fibers, posterior cricoarytenoid
muscle, thin muscle fiber
\end{keywords}

\maketitle
The headings “Abstract” and “Keywords” are generated automatically.
```

3.3. Landscape Page Orientation

If a table is too wide to fit the standard measure, it may be turned, with its caption, 90 degrees. Landscape tables cannot be produced directly using the `ar-1col` class file because

TeX itself cannot turn the page, and not all device drivers provide such a facility. To rotate a table, use the package `rotating` in your document and change the coding from `\begin{table}...\end{table}` to `\begin{sidewaystable}...\end{sidewaystable}`. For example:

```
\begin{sidewaystable}
\caption{Landscape table caption.}
\label{landtab}
\begin{tabular}{lccc}
.
.
.
\end{tabular}
\end{sidewaystable}
```

Because all tables will ultimately be professionally typeset during the composition stage of production, it is not necessary to invest significant effort at the submission stage in making tables aesthetically pleasing (e.g., by manually manipulating column widths or row heights or using excessive abbreviation) as long as all of the content is visible and understandable.

3.4. Sections

LaTeX2e provides four levels of section headings, and they are all defined in the `AR` class file:

```
\section
\subsection
\subsubsection
\paragraph
```

Section headings are automatically converted to the correct style and generated with numbers. Heading levels should be used only in the sequence shown above (e.g., `\subsubsection` should be used only within a subsection, and `\paragraph` should be used only within a subsubsection). Do not set off paragraphs in any other way (e.g., with boldface or italicized text at the beginning followed by a colon or period).

3.5. Floating Definitions and Literature Annotations

The `AR` class file allows authors to place term and abbreviation definitions in the margin alongside the text (see the left-hand margin of this page). These can be produced by

```
\begin{marginnote}
\entry{Aerosol}{a fine solid or liquid particle in the atmosphere}
\entry{XANES}{X-ray absorption near-edge structure}
\end{marginnote}
```

Aerosol: a fine solid or liquid particle in the atmosphere

XANES: X-ray absorption near-edge structure

To facilitate correct placement during final typesetting, margin definitions should be inserted directly after the paragraph where the corresponding term first appears in the main text. In the LaTeX output, each definition will appear individually in the margin next to that paragraph; however, note that in the final typeset version, all definitions will be grouped in a single list on each page.

Because this feature corresponds to clickable links on defined terms in the final HTML version of all an article, margin notes should be used only to provide brief definitions of terms or abbreviations used in the text, and not for any other purpose (e.g., not for other types of comments or notes on the main text).

The **AR** class file also allows authors to include annotations to references, which can be produced by placing a `\bibnote{...}` line containing the annotation directly after the reference's `\bibitem` line. The annotation then appears in the margin beside the corresponding reference.

3.6. Sidebars

The **AR** class file permits authors to include sidebars. These may be placed at the top of the page (t), the bottom of the page (b), or “here” (h). For example:

CHARGE TRANSFER

Although Mulliken (2001) long ago used theory to anticipate the importance of ground state CT in intermolecular interactions, it now appears that electron delocalization may play an even more widespread role in aqueous chemistry than previously suspected (Smith & Jones 2012). Ion–water CT (Anderson 2011; Brown 2000, 2002; Clifton 2015) and the affinity of ions for aqueous interfaces (Rose 2000, 2001), as well as the influence of ion–water and electron–water interactions.

This sidebar can be produced by

```
\begin{textbox}[h]
\section{CHARGE TRANSFER}
Although \cite{mulliken01} long ago used theory to anticipate the importance of
ground state CT in intermolecular interactions, it now appears that electron
delocalization may play an even more widespread role in aqueous chemistry than
previously suspected \citep{smithjones2012}. Ion--water CT \citep{anderson11, brown00,
brown2002, clifton15} and the affinity of ions for aqueous interfaces
\citep{rose00, rose01}, as well as the influence of ion--water and electron--water
interactions.
\end{textbox}
```

3.7. Extracts

The **AR** class file provides the standard extract environment:

This is an example of an extract. This is an example of an extract. This is an example of an extract. This is an example of an extract.

It can be produced by

```
\begin{extract}
This is an example of an extract. This is an example of an extract.
This is an example of an extract. This is an example of an extract.
\end{extract}
```

3.8. Lists

Numbered lists are provided in the AR class file using the `enumerate` environment, for example,

1. The attenuated and diluted stellar radiation,
2. Scattered radiation, and
3. Reradiation from other grains.

It can be produced by:

```
\begin{enumerate}
  \item The attenuated...
  \item Scattered radiation, and...
  \item Reradiation from other grains...
\end{enumerate}
```

Bulleted lists are provided in the AR class file using the `itemize` environment, for example,

- This is an example of a bulleted list.
- This is an example of a bulleted list.
- This is an example of a bulleted list.

It can be produced by:

```
\begin{itemize}
  \item This is an example of a bulleted list.
  \item This is an example of a bulleted list.
  \item This is an example of a bulleted list.
\end{itemize}
```

3.9. Figures

The AR class file will address the positioning of your figures; avoid using other positional instructions in the `figure` environment that would override these.

The `\caption` command should appear after the figure. Figures can be resized using the options available in `\includegraphics` command. The first option is used for modifying figure width and the second option is used for modifying figure height. For example, Figure 1 is produced using the following commands:

```
\begin{figure}
\includegraphics[width=3in,height=1.5in]{SampleFigure.eps}
\caption{Example of a figure caption. (\textit{a}) Description
of panel \textit{a}. (\textit{b}) Description of panel \textit{b}.}
\label{fig1}
\end{figure}
```

To facilitate figure placement in final typesetting, each figure and caption should be inserted directly after the paragraph in which that figure is first mentioned in the main text.

Figure captions will be automatically placed on the side of a page if the width of the figure exceeds that of the text. Cross-referencing of figures, tables, and numbered display

equations using the `\label` and `\ref` commands is encouraged. For example, in referencing Figure 1 above, we used `Figure \ref{fig1}`. Please note that the layout of the LaTeX-generated PDF will likely be different from the final typeset PDF.

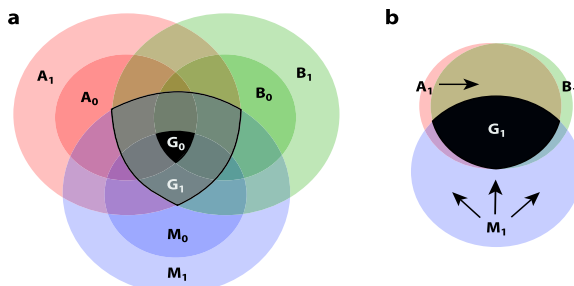


Figure 1 Example of a figure caption. (a) Description of panel a. (b) Description of panel b.

3.10. Tables

The `ar-1col` class file will address the positioning of your tables; avoid using the optional positional instructions in the `table` environment that would override these.

Table headings/titles should be at the top of the table. Units in the headers should be enclosed in parentheses. As with figures, to facilitate placement during final typesetting, each table should be inserted directly after the paragraph in which it is first mentioned in the main text.

```
\begin{table}
\caption{Reactivity calculations through the LIGRe algorithm for
\textit{M. thermophila} laccase at pH 9.0}\label{tab1}
\begin{center}
\begin{tabular}{@{}l|c|c@{}}
\hline
Ionizable groupa &  $pK_a$  (PROPKA)b & LIGRe
(pH 9)c \\
\hline
N-terminal & 8.0 & 10.0 \\
\hline
Tyr286 & 9.12 & 0.75 \\
\hline
Tyr214 & 9.66 & 0.21 \\
\hline
Lys128 & 9.80 & 0.15 \\
\hline
Tyr391 & 9.83 & 0.14 \\
\hline
Lys339 & 9.94 & 0.11 \\
\hline
Lys56 & 10.08 & 0.08 \\
\hline
Tyr546 & 10.21 & 0.06 \\
\hline
Lys205 & 10.22 & 0.06 \\
\hline
Lys353 & 10.22 & 0.06 \\
\hline
\end{tabular}
\end{center}
\begin{tabnote}
```

`\rm a` Prepared from 0.15 wt\% dispersion in water.

`\rm b` S-ZrO₂ fiber diameter.

`\rm c` S-ZrO₂ fiber volume fraction.

`\end{tabnote}`

`\end{table}`

Table 1 Reactivity calculations through the LIGRe algorithm for *M. thermophila* lac-case at pH 9.0

Ionizable group ^a	p <i>K</i> _a (PROPKA) ^b	LIGRe (pH 9) ^c
N-terminal	8.0	10.0
Tyr ²⁸⁶	9.12	0.75
Tyr ²¹⁴	9.66	0.21
Lys ¹²⁸	9.80	0.15
Tyr ³⁹¹	9.83	0.14
Lys ³³⁹	9.94	0.11
Lys ⁵⁶	10.08	0.08
Tyr ⁵⁴⁶	10.21	0.06
Lys ²⁰⁵	10.22	0.06
Lys ³⁵³	10.22	0.06

^aPrepared from 0.15 wt% dispersion in water.

^bS-ZrO₂ fiber diameter.

^cS-ZrO₂ fiber volume fraction.

3.11. Typesetting of Mathematics

The AR class file will center displayed mathematics provided that you use the LaTeX2e standard of open and closed square brackets as delimiters. The equation

$$\sum_{i=1}^p \lambda_i = (S)$$

was typeset using the AR class file with the commands

```
\[
  \sum_{i=1}^p \lambda_i = (S)
\]
```

For displayed equations, cross-referencing is encouraged. For example:

```
\begin{equation}
  (n-1)^{-1} \sum_{i=1}^n (X_i - \overline{X})^2.
  \label{eq:samplevar}
\end{equation}
```

Equation `\ref{eq:samplevar}` gives the formula for sample variance.

Refer to all numbered equations as Equation 1, Equation 2, etc.; do not use parentheses around the number or designators other than “Equation” (such as “Relation 3” or “Problem 1”). To ensure that the number appears in the correct form with no parentheses, use `\ref` rather than `\eqref` when referring to equations.

3.12. Summary Points and Future Issues

You can set special sections like `SUMMARY POINTS` or `FUTURE ISSUES` using the `AR` class file. For example:

SUMMARY POINTS

1. New X-ray light sources will enable nonlinear spectroscopy of core excitations in molecules.
2. Stimulated X-ray Raman spectroscopies launch and probe valence electron wavepackets through core-excited state intermediates.
3. X-ray four-wave mixing can reveal coupling between core-excited states.
4. Pulse wavevectors, phases, polarizations, and delays can be used to control the nonlinear signals.

This output can be produced by the following coding:

```
\begin{summary}[SUMMARY POINTS]
\begin{enumerate}
\item New X-ray light sources....
\item Stimulated X-ray Raman spectroscopies....
\item X-ray four-wave mixing can reveal...
\item Pulse wavevectors, phases, polarizations....
\end{enumerate}
\end{summary}
```

FUTURE ISSUES

1. Pulse sequences can be designed to apply the rapidly developing X-ray light source technology to the exploration of fundamental questions regarding interactions in molecular systems.
2. By adapting existing coherent nonlinear techniques to experiments using quantum and noisy sources, investigators can design new classes of signals.
3. Complete control over the phase and amplitude of an intense X-ray pulse would allow shaping techniques used in optical and IR spectroscopy to be applied to the X-ray regime.

This output can be produced by the following coding:

```
\begin{issues}[FUTURE ISSUES]
\begin{enumerate}
\item Pulse sequences....
```

```

\item By adapting existing....
\item Complete control over....
\end{enumerate}
\end{issues}

```

3.13. Disclosure Statement

At the time of manuscript submission, please disclose any financial interest of your own, or of any member of your authorship team, that might be favorably or adversely affected by your review. Prior to publication, all authors will be asked to complete and sign a disclosure statement. The possibility of conflict of interest does not disqualify anyone from authorship. We will, however, disclose the potential conflict of interest to our readers. If you have nothing to disclose, the following statement will be used: “The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.”

3.14. Acknowledgments

Please include any acknowledgments in a separate section above the Literature Cited section.

4. LITERATURE CITED

The bibliography follows the acknowledgments and is the last significant body of text in the article. It is produced by the usual LaTeX commands. In `ar-1col.cls`, `\begin{thebibliography}{}` ... `\end{thebibliography}` can be used to produce the bibliography.

The user is encouraged to let LaTeX produce the bibliography with the `\bibliography` command, letting BibTeX handle the formatting of the entries. There are six bibliography styles available for Annual Reviews journals:

<code>ar-style1.bst</code>	Harvard Style (not numbered). References include titles.
<code>ar-style2.bst</code>	Harvard Style (not numbered). References DO NOT include titles.
<code>ar-style3.bst</code>	Numbered, in order of appearance, including titles
<code>ar-style4.bst</code>	Numbered, in order of appearance, no titles
<code>ar-style5.bst</code>	Numbered, in order of appearance (formatted for Nuclear and Particle Science)
<code>ar-style6.bst</code>	Numbered, alphabetical

Use any bibliography style file name with the below command between `\begin{document}` and `\end{document}` to generate the bibliography file according to the house style for the journal:

```
\bibliographystyle{<.bst file name>}
```

When submitting the document source (.tex) file to Annual Reviews, it is recommended that the BibTeX .bbl file be manually copied into the document (within the traditional LaTeX bibliography environment) so as not to depend on external files to generate the bibliography and to prevent the possibility of changes occurring therein. The conventional

`\cite` command will generate citations as usual in LaTeX. We recommend the use of the `natbib.sty` package, which provides the following commands as well:

Command	Author-year mode	Numerical mode
=====	=====	=====
<code>\citett{key}</code>	Jones et al. (1990)	Jones et al. (3)
<code>\citett*{key}</code>	Jones, Baker & Smith (1990)	Jones, Baker & Smith (3)
<code>\citep{key}</code>	(Jones et al. 1990)	(3)
<code>\citep*{key}</code>	(Jones, Baker & Smith 1990)	(3)
<code>\citep[chap. 2]{key}</code>	(Jones et al. 1990, chap. 2)	(3, chap. 2)
<code>\citep[e.g.,]{key}</code>	(e.g., Jones et al. 1990)	(e.g., 3)
<code>\citep[e.g.,][p. 32]{key}</code>	(e.g., Jones et al. 1990, p. 32)	(e.g., 3, p. 32)
<code>\citeauthor{key}</code>	Jones et al.	--
<code>\citeauthor*{key}</code>	Jones, Baker & Smith	--
<code>\citeyear{key}</code>	1990	--
<code>\citenum{key}</code>	--	3

For more information regarding these commands, the authors can refer to the documentation of the `natbib` package.

The coding of the bibliography for a journal that uses Harvard Style and does not include titles is as follows:

```
\begin{thebibliography}{00}

\bibitem[Acevedo \& Fitzjarrauld(2001)]{Acevedo:01}
Acevedo O, Fitzjarrauld D. 2001. \textit{J. Atmos. Sci.} 58:2650--67

\bibitem[Acevedo et~al.(2009)Acevedo, Moraes, Degrazia, Fitzjarrauld, Manzi \& Campos]
{Acevedo:09}
Acevedo O, Moraes OLL, Degrazia GA, Fitzjarrauld DR, Manzi AO, Campos
JG. 2009. \textit{Agric. For. Meteorol.} 149:1--10

\bibitem[Large \& Nurser(2001)]{Large:01}
Large WB, Nurser AG. 2001. In \textit{Ocean Circulation and Climate:
Observing and Modelling the Global Ocean}, ed. G Siedler, J Church,
J Gould, pp. 317--36. San Diego, CA: Academic

\bibitem[Larsen et~al.(2013)Larsen, Ventura, Andersen, O'Brien, Piatkowski
\& McCarthy]{Larsen:13}
Larsen T, Ventura M, Andersen N, O'Brien DM, Piatkowski U, McCarthy MD.
2013. \textit{PLOS ONE} 8:e73441

\bibitem[Sverdrup et~al.(1942)Sverdrup, Johnson \& Fleming]{Sverdrup:42}
Sverdrup HU, Johnson MW, Fleming RH. 1942. \textit{The Oceans:
Their Physics, Chemistry, and General Biology}. New York: Prentice Hall

\bibitem[Yu et~al.(2008)Yu, Jin \& Weller]{Yu:08}
Yu L, Jin X, Weller RA. 2008. \textit{Multidecade global flux datasets from
the Objectively Analyzed Air-sea Fluxes (OAFux) project: latent and sensible
```

heat fluxes, ocean evaporation, and related surface meteorological variables}.
 OA Flux Proj. Tech. Rep. OA-2008-01, Woods Hole Oceanogr. Inst.,
 Woods Hole, MA

\bibitem[Zhang et al.(2019)Zhang, Wolfe \& Abernathey]{Zhang:19}
 Zhang W, Wolfe CLP, Abernathey R. 2019. arXiv:1911.01520 [physics.ao-ph]

\end{thebibliography}

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- Zhang W, Wolfe CLP, Abernathey R. 2019. arXiv:1911.01520 [physics.ao-ph]