Author Submission Guide for Annual Reviews Journals: Setting Up Your LaTeX 2ε 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-style5.bst`: This file is used to create the bibliography.

`Template-for-Authors-5.tex`: This file can be used as a starting point for preparing an article. `Template-for-Authors-5.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-5.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` by `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.

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 of the `\jname{...}` command for journal name.
2. Use of the `\jvol{...}` command for volume number.
3. Use of the `\jyear{...}` command for year.
4. Use of the `\doi{...}` command for DOI number.
5. Use of the `\firstpagenote{...}` command to place note on first page under DOI/copyright info.
6. Use of the `\tableofcontents` command to generate table of contents.

In general, once you have used the additional `ar-1col.cls` facilities in your document, do not process it with a standard LATEX class file.

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

\tableofcontents
```

The headings "**Abstract**" and "**Keywords**" are generated automatically. You can generate the article's table of contents using the command `\tableofcontents`.

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. The following procedure can be used to produce such tables.

1. Use the package `rotating` in your document and change the coding from
   ```
   \begin{table}...\end{table}
   ```
   to
   ```
   \begin{sidewaystable}...\end{sidewaystable}
   ```
   to rotate your table on the appropriate page of your document. For example:

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

3.4. Sections

LaTeX 2_ε 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 boldface style and generated with numbers.

3.5. Floating Terms and Definitions

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

```
\begin{marginnote}[120pt]
\entry{XANES}{X-ray absorption near-edge structure}
\entry{EXAFS}{extended X-ray absorption fine structure}
\entry{XFEL}{X-ray free-electron laser}
\entry{HHG}{higher-harmonic generation}
\end{marginnote}
```

The `AR` class file also allows authors to include annotations to references, which can be produced by

```
\bibnote[<skip value>]{......}
```

There is an option to move notes vertically in the margin, by inserting the value within square brackets. The value can be either positive or negative.

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 (83) long ago used theory to anticipate the importance of ground state CT in inter-molecular interactions, it now appears that electron delocalization may play an even more widespread role in aqueous chemistry than previously suspected (84). Ion–water CT (85–92) and the affinity of ions for aqueous interfaces (130–133), as well as the influence of ion–water and electron–water interactions.

It can be produced by

```
\begin{textbox}[h]
\section{CHARGE TRANSFER}
Although Mulliken (83) 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 (84). Ion--water CT (85--92) and the affinity of
ions for aqueous interfaces (130--133), 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

The `AR` class file allows for unnumbered lists using the `unnumlist` environment, for example,

First unnumbered item, which has no label and is indented from the left margin.
Second unnumbered item.
Third unnumbered item, which has no label and is indented from the left margin.

It can be produced by:

```
\begin{unnumlist}
  \item First unnumbered item...
  \item Second unnumbered item...
  \item Third unnumbered item...
\end{unnumlist}
```

Numbered lists are also 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 also 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 and therefore you should 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{This is an example of a figure caption. (\textit{a}) This is

a description of part a, and (\textit{b}) this is a description for part b.}
\label{fig1}
\end{figure}
```

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.
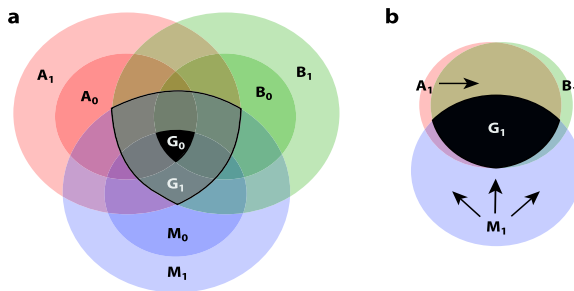
Figure 1 This is an example of a figure caption. (a) This is a description for part a, and (b) this is a description for part b.

3.10. Tables

The `ar-1col` class file will address the positioning of your tables and therefore you should 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 "(...)" (unless indicating concentration).

```
\begin{table}
\caption{Reactivity calculations through {\itshape LIGRe} algorithm for
{\itshape M. thermophila} laccase at pH 9.0}\label{tab1}
\begin{center}
\begin{tabular}{@{}l|c|c@{}}
\hline
Ionizable group$^{\rm a}$ &p$K_a$ (PROPKA)$^{\rm b}$ &{\itshape LIGRe}
(pH 9)$^{\rm c}$\\
\hline
N-term &8.0 &10.0\\\hline
Tyr$^{286}$ &9.12 &0.75\\\hline
Tyr$^{214}$ &9.66 &0.21\\\hline
Lys$^{128}$ &9.80 &0.15\\\hline
Tyr$^{391}$ &9.83 &0.14\\\hline
Lys$^{339}$ &9.94 &0.11\\\hline
Lys$^{56}$ &10.08 &0.08\\\hline
Tyr$^{546}$ &10.21 &0.06\\\hline
Lys$^{205}$ &10.22 &0.06\\\hline
Lys$^{353}$ &10.22 &0.06\\
\hline
\end{tabular}
\end{center}
\begin{tabnote}
$^{\rm a}$Prepared from 0.15 wt\% dispersion in water; $^{\rm b}$S-ZrO$_2$
fiber diameter; $^{\rm c}$S-ZrO$_2$ fiber volume fraction.
\end{tabnote}
\end{table}
```

Table 1   Reactivity calculations through *LIGRe* algorithm for *M. thermophila* laccase at pH 9.0

Ionizable group[a]	pK_a (PROPKA)[b]	*LIGRe* (pH 9)[c]
N-term	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

[a]Prepared from 0.15 wt% dispersion in water; [b]S-ZrO$_2$ fiber diameter; [c]S-ZrO$_2$ fiber volume fraction.

3.11. Typesetting of Mathematics

The `AR` class file will center displayed mathematics provided that you use the LaTeX 2_ε 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^n_{i=1} (X_i - \overline{X})^2.
  \label{eq:samplevar}
\end{equation}
```

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

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 though 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.

You can get this output using the below coding:

```
\begin{summary}[SUMMARY POINTS]
\begin{enumerate}
\item New X-ray light sources will enable nonlinear spectroscopy of core
  excitations in molecules.
\item Stimulated X-ray Raman spectroscopies launch and probe valence
  electron wavepackets though core-excited state intermediates.
\item X-ray four-wave mixing can reveal coupling between core-excited states.
\item Pulse wavevectors, phases, polarizations, and  delays can be used
to control the  nonlinear signals.
\end{enumerate}
\end{summary}
```

FUTURE ISSUES

1. More elaborate pulse sequences can be designed to apply the rapidly developing X-ray light source technology to the exploration of fundamental questions regarding many-body interactions in molecular systems.
2. By adapting existing coherent, classical, nonlinear techniques to experiments using quantum and noisy sources, investigators can design new classes of signals, and additional opportunities to measure them with existing XFEL sources will be made possible.
3. Complete control over the phase and amplitude of an intense X-ray pulse would allow sophisticated shaping techniques used in optical and IR spectroscopy to be applied to the X-ray regime.

You can get this output using the below coding:

```
\begin{issues}[FUTURE ISSUES]
\begin{enumerate}
\item More elaborate pulse .....
\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}` command 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:

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

Use any bibliography style file name using the below command between the `\begin{document}` and the `\end{document}` to generate 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 as it provides the following commands as well:

```
Command                     Author-year mode            Numerical mode
=======                     ================            ==============
\citet{key}                 Jones et al. (1990)         Jones et al. (3)
\citet*{key}                Jones, Baker & Smith (1990) Jones, Baker & Smith (3)
\citep{key}                 (Jones et al. 1990)         (3)
\citep*{key}                (Jones, Baker & Smith 1990) (3)
\citep[chap. 2]{key}        (Jones et al. 1990, chap. 2) (3, chap. 2)
\citep[e.g.,][]{key}        (e.g., Jones et al. 1990)   (e.g., 3)
```

```
\citep[e.g.,][p. 32]{key}    (e.g., Jones et al. p. 32)      (e.g., 3, p. 32)
\citeauthor{key}             Jones et al.                     --
\citeauthor*{key}            Jones, Baker & Smith             --
\citeyear{key}               1990                             --
```

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 following Style 5 is as follows:

```
\begin{thebibliography}{96}
\expandafter\ifx\csname
natexlab\endcsname\relax\def\natexlab#1{#1}\fi

\bibitem{Glashow:1961tr}
Glashow SL. \textit{Nucl. Phys.} 22:579 (1961)

\bibitem{Weinberg:1967tq}
Weinberg S. \textit{Phys. Rev. Lett.} 19:1264 (1967)

\bibitem{Salam}
Salam A. In \textit{Elementary Particle Theory: Relativistic
Groups and Analyticity. Proceedings of the 8th Nobel Symposium},
ed. N~Svartholm, p. 367. Stockholm: Almqvist \& Wiksell (1968)

\bibitem{Fritzsch:1973pi}
Fritzsch H, Gell-Mann M, Leutwyler H. \textit{Phys. Lett.} \textit{B} 47:365
(1973)

\bibitem{Gross:1973id}
Gross DJ, Wilczek F. \textit{Phys. Rev. Lett.} 30:1343 (1973)

\bibitem{Politzer:1973fx}
Politzer HD. \textit{Phys. Rev. Lett.} 30:1346 (1973)

\bibitem{Kronfeld:2010bx}
Kronfeld AS, Quigg C. \textit{Am. J. Phys.} 78:1081 (2010)

\bibitem{Langacker:2010}
Langacker P. \textit{The Standard Model and Beyond. Series in
High Energy Physics, Cosmology, and Gravitation}. Boca Raton:
CRC/Taylor \& Francis (2010)

\bibitem{GT2}
Quigg C. \textit{Gauge Theories of the Strong, Weak, and
Electromagnetic Interactions}. Princeton, NJ: Princeton
Univ. Press. 2nd ed. (2013)

\bibitem{MattS}
```

```
Schwartz MD. \textit{Quantum Field Theory and the Standard Model}.
Cambridge, UK: Cambridge Univ. Press (2013)

\bibitem{DynSM}
Donoghue JF, Golowich E, Holstein BR. \textit{Dynamics of the
Standard Model}. Cambridge, UK/New York: Cambridge
Univ. Press. 2nd ed. (2014)
\end{thebibliography}
```

This coding results in the following formatted bibliography:

LITERATURE CITED

1. Glashow SL. *Nucl. Phys.* 22:579 (1961)

2. Weinberg S. *Phys. Rev. Lett.* 19:1264 (1967)

3. Salam A. In *Elementary Particle Theory: Relativistic Groups and Analyticity. Proceedings of the 8th Nobel Symposium*, ed. N Svartholm, p. 367. Stockholm: Almqvist & Wiksell (1968)

4. Fritzsch H, Gell-Mann M, Leutwyler H. *Phys. Lett. B* 47:365 (1973)

5. Gross DJ, Wilczek F. *Phys. Rev. Lett.* 30:1343 (1973)

6. Politzer HD. *Phys. Rev. Lett.* 30:1346 (1973)

7. Kronfeld AS, Quigg C. *Am. J. Phys.* 78:1081 (2010)

8. Langacker P. *The Standard Model and Beyond. Series in High Energy Physics, Cosmology, and Gravitation.* Boca Raton: CRC/Taylor & Francis (2010)

9. Quigg C. *Gauge Theories of the Strong, Weak, and Electromagnetic Interactions.* Princeton, NJ: Princeton Univ. Press. 2nd ed. (2013)

10. Schwartz MD. *Quantum Field Theory and the Standard Model.* Cambridge, UK: Cambridge Univ. Press (2013)

11. Donoghue JF, Golowich E, Holstein BR. *Dynamics of the Standard Model.* Cambridge, UK/New York: Cambridge Univ. Press. 2nd ed. (2014)