Instructions to Authors on LaTeX2e file Submission

These instructions are for guiding authors in preparing their articles to be published in the Annual Reviews series. The main intention is to help the authors prepare their files, closely adhering to the style used by Annual Reviews for their final publication.

These instructions are meant as a supplement to the LaTeX2ε manual, and gives only a brief introduction to using the LaTeX2ε document preparation system and addresses issues specific to Annual Reviews' style only. For a preliminary understanding of the LaTeX2ε typesetting system and additional details, we recommend that the authors refer to Michel Goossens, Frank Mittelbach, and Alexander Samarin's "The LaTeX: Companion" (henceforth referred to as the LaTeX2ε book). This book is availavble in print.

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

ar2e.cls: This is the style file to be used for creating the article. The naming convention and usage of commands closely follow the standard style file **article.cls**, referred by the LaTeX2ε book. Hence, the functional description of elements mentioned in the LaTeX2ε book holds good while using this style file also.

model2e.tex: This file is created using the style file **ar2e.cls** and meant to be a sample for the authors while using **ar2e.cls**. It contains examples of all elements that generally appear in the Annual Reviews series.

bare2e.tex: This file can be used by the authors as a starting point for preparing their article. **bare2e.tex** is a template containing the commands laid out in the correct order. Authors can simply type in their article contents between the tags as described.

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 **bare2e.tex** should be renamed before beginning to edit.

1 Getting Started

The bare minimum one needs to run a document through LaTeX2ε is:

```
\documentclass[range]{ar2e}
\begin{document}
Here goes the body of the document.
Start typing in the paragraph here .....
\end{document}
```

The `\documentclass` command should be the very first command in a LaTeX2ε document. In the above example, the argument `{ar2e}` refers to the

class/style file **ar2e.cls** and [range] option implements the LaTeX [**?**]ommand to be used for citation styles in numerical style. The style of the document and the elements used are defined in the style file. Hence, this style file should be the first one to be read before going into the body of the document, so that LaTeX2ε knows how the elements, that appear in the body of the document, are to be processed.

The command pairs, `\begin{document}` and `\end{document}`, delimits the body of the document. (Note: Any `\begin{}` command must end with its corresponding `\end{}` command in LaTeX2ε.) Between the `\begin{document}` and the `\end{document}`, the body of the document can be typed in. That is all one is required to run a simple document with plain running text.

2 Title Page

However, for submitting an article to Annual Reviews, information such as title of the article, author's name, author's affiliation, abstract of the article, keywords used in the article, and the running heads for the left and right pages of the article, are all needed. These information must be placed at the beginning of the body of the document (that is, right after the `\begin{document}` command), using the following commands:

```
\title{Title of the Article}
\author{Author's Name\affiliation{Author's affiliation}}
\markboth{Left running head}{Right running head}
\begin{keywords}
keyword1, keyword2, keyword3, keyword4, keyword5, keyword6
\end{keywords}
\begin{abstract}
Contents of abstract.......
\end{abstract}
\maketitle
```

The description and style specifications of these elements are as follows:

`\title{}`: The title of the article is to be filled in here. The style used for typing in the title is, capitals for the initial letter of each word with obvious exception for prepositions.

`\author{\affiliation{}}`: The First, last and middle name of the author is filled in the format "First-name M. Last-name". What follows is an example of using this command for (i) one author with affiliation, (ii) more than one author with the same affiliation, and (iii) more than one author with different affiliations.
(i) One author:

```
\author{Author1 M. Lastname1
\affiliation{Department of X, University of Y}}
```

(ii) More than one author with same affiliation:

```
\author{Author1 M. Lastname1 and Author2 M. Lastname2
\affiliation{Department of X, University of Y}}
```

(iii) More than one author with different affiliations:

```
\author{Author1 M. Lastname1
\affiliation{Department of X, University of Y}
Author2 M. Lastname2
\affiliation{Department of M, University of N}
Author3 M. Lastname3
\affiliation{Department of A, University of B}}
```

`\markboth{}{}`: The left running head is the name of the author and the right running head is the title of the article. Only the last name of the authors is used in the running head. For articles with one author, `{Lastname1}` is used and for two or more authors `{Lastname1 \& Lastname2}` or `{Lastname1,} {Lastname2 \&} {Lastname3}` is used. If the title of the article is short, then it can be used as it is in the running head; but, if the title should run longer, then an abbreviated title must be used for the running head.

`\begin{keywords}` and `\end{keywords}`: Upto six keywords may be supplied by typing in the keywords environment. The last keyword in the list is NOT followed by a period at the end.

`\begin{abstract}` and `\end{abstract}`: The abstract summarizing the paper may be typed between `\begin{abstract}` and `\end{abstract}`. The abstract is usually written in a single paragraph. Any references therein should be cited in full, and no figures or tables should be cited.

`\maketitle`: The command `\maketitle` generates the title page using all the information provided so far.
Note: Unless and until the `\maketitle` command is executed, the title, author, keyword and abstract information will not be seen in the output.

3 Main Article

Headings

Three levels of headings are provided for logical presentation of the article. They are obtained by using the commands `\section{`*section title*`}`, `\subsection{`*subsection title*`}`, and `\subsubsection{`*subsubsection title*`}`.

The section title must be typed in using capital letters only (All CAPS). The subsection titles are typed in with first letter of each word in capital letters (Caps Lower Case). The subsubsection title are typed in using capital letters only (All CAPS).

Display Math

The display math commands `\[` and `\]`, `\begin{equation}` and `\end{equation}`, `\begin{eqnarray}` and `\end{eqnarray}`, and `\begin{eqnarray*}` and `\end{eqnarray*}`, are described in detail in the LaTeX2ε book. The style aspects to be noted are:
Equation numbering: The equation numbers must be placed on the last line, if more than one equation is referred by the same equation number.
Example:

$$\begin{aligned} a &= b + c \\ da &= db + dc \\ eda &= edb + edc \end{aligned} \tag{1}$$

Also, if an equation should run more than a line, it must be broken before operators and aligned after the equal sign and the equation number must be placed on the last line of the turnovers. Example:

$$\begin{aligned} a &= b + c + d + e + f + g + h + i + j + k + l + m + n + o + p + q \\ &\quad + r + s + t + u + v + w + x + y + z + A + B + C + D + E + F \\ &\quad + G + H + I + J + K + L + M + N + O + P + Q \end{aligned} \tag{2}$$

Technical Symbols, Formulas

LaTeX2ε sets all variables, numbers and symbols in appropriate font, if it is coded correctly. The numbers, punctuations, and delimiters, are set in roman type by default, and any alphabets used as variables are set in italic type and mathematical function names are set in roman.

All mathematical or scientific symbols and formulas, no matter how short or insignificant they may be, must always be used within math mode. For example, in the phrase "the total volume V," "V" must be treated as a variable/formula and enclosed between dollar signs, as `$V$`. Although the coding `{\it V}` produces the same result as `$V$`, it is highly recomended that math mode be used for representing math variables. A lot of mathematical functions such as 'cos', 'det', 'log', etc., are already defined in LaTeX. Using `\cos`, `\det`, `\log`, etc., within math mode (i.e., within $ symbols or in display equations), produces these names in roman type. (A list of available functions are given in the LaTeX2ε book.)

4 Figures and Tables

Figures and tables are usually handled as floating objects—that is, they are not tied to a specific point of a page. Such items are often inappropriate in size; therefore, trying to fit them into the document at the point of citation may result in poor layout of the page. These objects are treated as floating

objects by `AR2e.cls` and placed at the end of the article. It is necessary that all floats (figures and tables) contain a caption associated with it. LaTeX2ε automatically numbers these captions. If the figure/table is self-explanatory and does not require any text for the caption, `\caption{}` alone would suffice. This will simply generate the figure/table number, without any caption text. The figure/table coding may be placed immediately following the paragraph in which it is referred. If the same figure/table is referred more than once, the coding should follow the paragraph containing the very first reference.

```
This paragraph contains the first reference to Figure~1.
This pargraph also has the first reference to Table~1.
Immediately following this paragraph, the corresponding
figure/table coding is placed.

\begin{figure}% figure 1
Body of figure.
\caption{Figure caption.}
\end{figure}

\begin{table}
\caption{Table caption}
\begin{tabular}
Body of table....
\end{tabular}
\end{table}
```

Note: The figure caption is usually terminated with a period and placed *below* the body of the figure, where as the table caption is *not* terminated with a period and placed *above* the body of the table, as can be noted in the example above.

Note: The `~` is used to tie two words together. Using it between 'Figure' and '1' in the example above, ensures that these two words always go together and are not broken across lines or pages.

It is highly recommended that the authors refer to the LaTeX2ε book for the usage of the commands `\label{}`, `\pageref{}`, and `\ref{}`. These commands are very valuable while writing an article. They are used wherever a sequence number is to be referenced (e.g., referring to figure, table, section or page numbers). It gives the flexibility, that the authors need not keep track of the exact number of the figure/table/section/page while writing the article; and so moving around or inserting new paragraphs or floats can be done very easily.

Body of the Figure—Graphics

The body of the figure may contain a hand-drawn artwork; be a photograph or computer-generated image; or it may be in an electronic format.

LaTeX2ε coding for handling graphics may fall under one of these three categories:

Option 1—leave blank space

Leave a blank space for an external graphic to be inserted at a later stage,

```
\begin{figure}
\vspace*{2in}
\caption{Figure caption.}
\end{figure}
```

This option can be used, passing on the responsiblity of handling the graphics to the publishers, by supplying the graphics file separately, along with a hard-copy after numbering them correctly to correspond with their captions. If the graphics is not available in file format, the hand-drawn artwork or photograph can be submitted in original, with mention of correct figure numbers.

Hand-made graphics These graphics should be drawn in black ink with clean, unbroken lines on nonabsorbent paper. Authors' original graphics are used whenever possible.

Photographs/images The originals of photographs must be submitted to generate good quality output. Similarly, if computer-generated images or any other image available only on paper (say, an image from an already published book), must be submitted in their original form. This ensures that the images brought on print are in their best resolution and quality.

Option 2—using LaTeX2ε for graphics

If the author is familiar with LaTeX2ε's `{picture}` environment or if the figure is comprised of tables or mathematical equations, they can be set as part of the LaTeX2ε document. (For details of `{picture}` environment, please refer to the LaTeX2ε book.)

```
\begin{figure}
\begin{picture}
.....
\end{picture}
\caption{Figure caption.}
\end{figure}
```

In this case, the graphics will be part of the document, and separate files for the graphics need not be submitted.

Option 3—using graphics from another application

The graphics produced by another application, saved in Encapsulated PostScript (EPS) file format, can be incorporated in the LaTeX2ε document. (For using EPS files, use `\input epsf.def` command at the top of the document. The file `epsf.def` must be available on your system, and is included on this ftp site, for convenience.)

```
\begin{figure}
\epsfbox{file1.eps}
\caption{Figure caption.}
\end{figure}
```

These graphics files must be submitted separately, along with the LaTeX2ε document.

The file `epsf.def` contains the necessary documentation on the usage of all the commands. For scaling the art and other advance functions, this file can be referred.

More on graphic file formats Encapsulated PostScript (EPS) is a very standard format, available as an option for 'save', in most graphics applications, under any operating system like Macintosh, Windows, or Unix. Whether the image is created using an application or scanned in from a photograph or computer-generated image, it is recommended that this EPS format be used to save your images, for use with the LaTeX2ε document.

However, if the graphics package you are using does not support EPS file format, it is recommended that one of the standard graphics formats, such as TIFF, PICT, etc., be used, rather than the application-dependent format. For example, if you are using SuperPaint on a Macintosh, do not send files in SuperPaint format. Instead, save the file in PICT format from SuperPaint and send the PICT files. Graphics files submitted in an application-dependent format are not likely to be used. If the application supports PostScript format, it can also be used with your LaTeX2ε document. For this, the file `psfig.sty` must be included in the document. (The file `psfig.sty` contains the necessary instructions for using the commands.)

Points to be remembered while creating graphics The lightest line weight which will reproduce clearly at high resolution is 0.5pt, after scaling. Any rule less than 0.5pt thick after scaling, may not be clearly visible at the time of the printing. The fact that, when a figure is magnified or reduced, the thickness of the lines also vary accordingly must be remembered while creating the graphics and choosing suitable line thickness.

Graded line weights should increase in steps of at least 0.5pt. Increments less than this are not distinguishable at high resolution.

Screened fills should not contain dots less than 15% (less will print as white) and not greater than 85% (greater will print as black).

In either case, submit a separate file for each graphics along with the LaTeX2ε/ document. In cases where files cannot be saved in an EPS format, you may choose to leave space in the LaTeX2ε2ε/ document and submit the graphics files separately.

Note: No matter what method was used to produce the graphic, it is necessary to provide a hard copy. The captions for figures must be supplied in a separate page along with their respective figure numbers. (This can be easily ac-

complished with the command `\listoffigures` at the end of the article. This command will generate a list of all figure captions with the correct numbers.)

Body of the Table

Annual Reviews has a specific style for setting a table in their articles. No vertical rules are used in their tables. The body of the table starts with a double rule; the column heads are followed by single rule and the body of the table is concluded with a single rule. An example for table coding is,

```
\begin{table}
\caption{Table caption}
\begin{tabular}{@{}ccc@{}}
\hline\hline
Col 1 & Col 2 & Col 3\\
\hline
1 & 2 & 3\\
4 & 5 & 6\\
7 & 8 & 9\\
\hline
\end{tabular}
\end{table}
```

the table may be centered using the `{center}` environment. The LaTeX2ε book discussed in detail, the methods for handling more complex tables.

If the authors wish to use a table (or a photograph or printed material), generated by an other application as it is, it can be treated as a graphics and the procedure mentioned in the previous section for handling a graphic file in figures can be followed.

5 Intext Reference Citations

Bibliographic citations inside the text of a LaTeX document are flagged with the command `\cite[text]{cite_key-list}`. The `\cite` command associates the list of comma separated keywords in the `cite_key-list` parameter with the arguments of `\bibitem` commands inside a `thebibliography` environment, and it writes the keys into the `.aux` file. As with other LaTeX identifiers, `cite_key-lists` are case-sensitive.

There are 2 different intext reference style in AR articles. (a) Numbered and (b) Author year reference style. Numbered style citation need to be tagged using standard LaTeX `\cite{cite_key-list}` commands. Tagging `[range]` in `\documentclass[range]{ar2e}` option designats range of numbers as "–" in reference citations. As with other (Author-year), reference can be re-formatted by following commands:-

```
\citet{key}   ==>>  Jones et al. (1990)
```

```
\citet{key1, key2}==>>  Jones et al. (1990, 1991)
\citep{key}   ==>> (Jones et al., 1990)
\citep{key1, key2}==>> (Jones et al., 1990, 1991)
\citealt{key}     ==>> Jones et al. 1990
\citealt{key1, key2}    ==>> Jones et al. 1990, 1991
```

6 Bibliographic References

The LaTeX2ε coding to be used for listing out the bibliographic references are:

```
NUMBERED REFERENCES
\begin{thebibliography}{9}
\bibitem{}  First entry...
\bibitem{}  Second entry...
\bibitem{}  Third entry...
\end{thebibliography}

UNNUMBERED REFERENCES
\begin{thebibliography}{}
\bibitem[name1(1989)]{name89} First entry...
\bibitem[name2(1990)]{name90} Second entry...
\bibitem[name3(1990)]{name90} Second entry...
\end{thebibliography}
```

The argument for `{thebibliography}` ('9' used in the example above) defines the maximum width of the bibliography numbers. A single digit number may be used if the total number of bibliography entries is less than 10; '99' may be used if the total number of bibliography entries is less than 100; or '999' if the total number of bibliography entries is less than 1000. This ensures that the left margin is cleared for 1, 2, or 3 digits as necessary.

The style used for bibliography entries is as follows:

Journal article

```
\bibitem{}
Brunner J, Senn H, Richards FM. 1980.
3-Trifluoromethyl-3-phenyl-diazirine: a new carbene generating
group for photolabeling reagents. {\it J. Biol. Chem.}
255:3313--18
```

That is, the format for JOURNAL ARTICLES is:
author name, closed up initials, year. Then the title of the paper cited, followed by *journal name* where it appeared with volume number:and page ranges.

Edited Volume

```
\bibitem{}
LeMaster DM, Richards FM. 1986. NMR studies of {\it E. coli}
thioredoxin utilizing selective C, N and H enrichments. In
{\it Symposium on Thioredoxin and Glutaredoxin Systems:
Structure and Function}, ed. A Holmgren, C-I Branden,
H Jornvall, B-M  Sjoberg, pp. 67--76. New York:
Raven. 411 pp.
```

The format for EDITED VOLUMES is:
Author name, initials, year. In *Proc. . . .*, ed. Editor's name with initials first, pp. 123–555. City: Publisher. 999 pp.

For citing a bibliographic item within the article, the convention is Reference Number within parentheses. e.g., (10), (12–15), etc.

Note: The authors are urged to use the LaTeX2ε command `\cite{}` for referring the bibliographic entries. For using this appropriate reference tags must be used in the `\bibitem{}` command. For example, say the 56th item in the bibliography is given the label `\bibitem{knuth85}`; placing the command `\cite{knuth85}`, will produce "(56)" on the output.

Please refer to the LaTeX2ε book for an in-depth discussion of this feature.

7 Some Shortcuts

The authors can create their own macro definitions, to increase efficiency and consistency. All these definitions may be placed at the top of the document, so that they are all in one place and they are defined before being called for use. For example, new definitions can be made as follows:

```
\documentclass{ar2e}
\newcommand\BM{Dr.~Benjamin Franklin}
\newcommand\tandef{\tan\theta=\frac{\sin \theta}{\cos \theta}}
\begin{document}
```

If the name `Dr.~Benjamin Franklin` is expected to be used very often in the article, making a definition like this makes sure that the `~` is always in place so that line break never occurs after 'Dr.', and the name is consistently spelt. Mathematical functions often used can also be defined to minimize typing errors and to increase ease of use.

Note: We recommend that the authors use the command `\newcommand`, rather than the command `\def`, for creating new definitions, to avoid inadvertent redefinitions of any existing commands.

```
%% BARE2e.TEX for Authors
\documentclass{ar2e}
\begin{document}
%% AUTHOR,  START TYPING FROM HERE
```

```
\title{ }  %% Type the title inside the braces

\markboth{Author-name}{Shorter title, if too long for a line}

\author{Author-name\affiliation{Department of Molecular Biophysics}}

\begin{keywords}
word one, word2,  last word with no fullstop
\end{keywords}

\begin{abstract}
Abstract text...
\end{abstract}

\maketitle

\section{ALL CAPITALS}

\subsection{Caps and Lowercase}

\subsubsection{ALL CAPITALS}

\begin{figure}
Body of figure...
\caption{}
\end{figure}

\begin{table}
\caption{}
Body of table...
\end{table}


\section{ }
\subsection{ }

\begin{thebibliography}{99}

\bibitem{}

\bibitem{}

\bibitem{}

\bibitem{}
```

```
\bibitem{}

\end{thebibliography}
\end{document}
```