

User Manual

IMA Journals—Authoring template

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1 Introduction

Oxford University Press has developed this authoring template to help authors in preparing articles. Authors are encouraged to use this template to produce L^AT_EX manuscripts which conform to IMA Journal styles. This document is a manual for authors to help using this template during article preparation. It features general guidelines and contains descriptions regarding various elements that can be used while preparing manuscripts. Authors are requested to refer to the file “README” for details of files available for reference.

Please utilize the IMA authoring template to the maximum, rather than adding further packages or macros if possible. Please use semantic mark-up instead of formatting markup where there is a choice, for instance using `\emph` rather than `\it` or `\textit` to indicate emphasis. This will ease the production process and avoids misinterpretation of your L^AT_EX code.

This documentation is not intended to give an introduction to L^AT_EX. For questions concerning T_EX systems/installations or the L^AT_EX mark-up language in general, please visit <http://tug.ctan.org/> or any other T_EX user group worldwide. The essential reference for L^AT_EX is Mittelbach F., Goossens M. (2004) *The L^AT_EX Companion. 2nd edn.*, but there are many other good books about L^AT_EX.

2 Quick reference guide

- How to download and install - <https://miktex.org/download>
- Any system requirements - <https://miktex.org/kb/prerequisites-2-9>
- Quick steps to get started -
<http://users.dickinson.edu/~richesod/latex/latexcheatsheet.pdf>
<http://wch.github.io/latexsheet/latexsheet.pdf>
<https://www.overleaf.com/learn>

3 How to start and prepare your article

It is assumed that you possess basic knowledge of L^AT_EX. Unless using L^AT_EX online (for example via Overleaf.com) ensure that you have L^AT_EX2e version installed on your computer. You are provided with a class file “ima-authoring-template.cls”. This template can be kept with your manuscript files. Note that

the class file depends on the following packages which are standard and are available along with L^AT_EX installation:

graphicx	multirow	amsmath	amssymb	amsfonts
array	flushend	stfloats	color	xcolor
rotating	chnngpage	totcount	fix-cm	algorithm
algorithmicx	algpseudocode	listings	url	crop

Apart from the above-listed packages, the following additional packages are used in the class file for providing add-on functionalities to the template:

subfloat	subfig	appendix	hyperref	footnote
mathrsfs	natbib	wrapfig	amsthm	apacite

To learn more about the underlying packages, please read the respective documentations (try, e.g., `texdoc [package name]` at your shell prompt or visit <http://tug.ctan.org/>).

You are given with sample tex file: `ima-authoring-template.tex`

Please save a copy of the template file before you start editing the file as per your requirement. These samples contain the lines for calling class files, the preamble area, and the start/end of document where major sample elements required for an article are placed. Comments are included for each element and are self-explanatory. You can add your actual manuscript content in place of these sample elements. The standard structure of each element for an article is explained in detail in the following sections.

To use IMA authoring template, put all the package files in your working directory, edit the file “sample template file” in your preferred text editor, and run L^AT_EX as usual. The resulting layout is similar but not identical to the layout of the final article.

Please note that you are not responsible for any final page layout. It is not necessary (and is even sometimes undesirable) to do any fine-tuning with commands like `\break`, `\pagebreak`, `\vspace`, `\clearpage`, etc. Please use semantic mark-up as far as possible and avoid additional formatting commands.

4 Package features and some important settings

4.1 Language

English is the default language used for typesetting rules.

4.2 Fonts

Please refrain from using custom fonts.

Text fonts: Unlike the final published version, the authoring template uses non-commercial fonts: Times. These fonts are free version of the PostScript standard fonts and are supplied as part of all standard T_EX distributions.

Math fonts: The standard Computer Modern math fonts are used.

5 Preamble

The preamble part comes between the document class line—`\documentclass{...}`—and the beginning of your document—`\begin{document}`. Use this preamble area to include additional packages and customized macros if any.

6 Details on document class options

- a. Options available to select below IMA journals:
 - IMAIAI
 - IMAMAN
 - IMAMAT
 - IMAMCI
 - IMAMMB
 - IMANUM
 - IMATRM
- c. `namedate` — for authoryear citation style; default reference citation style is numbered reference style
- d. `webpdf` — for cropped paper size in the PDF output
- e. `unnumsec` — to get unnumbered section heads

7 Major structures/elements

Article contents are divided into three main elements—front matter, main matter, and back matter. The elements preceding the `\maketitle` tag are considered as front matter elements and the elements placed below the `\maketitle` tag are main matter elements. Elements found after the section “Conclusion” are considered as back matter elements.

Front matter	Main matter	Back matter
<code>\title{...}</code>	<code>\section{...}</code>	<code>\begin{appendices}... \end{appendices}</code>
<code>\author{...}</code>	<code>\subsection{...}</code>	<code>\bibliographystyle{...}</code>
<code>\authormark{...}</code>	<code>\subsubsection{...}</code>	<code>\bibliography{...}</code>
<code>\address{...}</code>	<code>\paragraph{...}</code>	<code>\begin{biography}{...}{...} \end{biography}</code>
<code>\corresp{...}</code>	<code>\begin{algorithm}... \end{algorithm}</code>	
<code>\received{...}{...}{...}</code>	<code>\begin{lstlisting}... \end{lstlisting}</code>	
<code>\revised{...}{...}{...}</code>	<code>\begin{table}... \end{table}</code>	
<code>\accepted{...}{...}{...}</code>	<code>\begin{figure}... \end{figure}</code>	
<code>\abstract{...}</code>	<code>\begin{enumerate}... \end{enumerate}</code>	
<code>\keywords{...}</code>	<code>\begin{unlist}... \end{unlist}</code>	
<code>\boxedtext{...}</code>	<code>\begin{itemize}... \end{itemize}</code>	
<code>\editor{...}</code>	<code>\begin{theorem}... \end{theorem}</code>	
<code>\maketitle</code>	<code>\begin{proposition}... \end{proposition}</code>	
	<code>\begin{example}... \end{example}</code>	
	<code>\begin{definition}... \end{definition}</code>	
	<code>\begin{proof}... \end{proof}</code>	
	<code>\begin{equation}... \end{equation}</code>	

8 Front matter elements

Required elements may vary depending on the journal to which you plan to submit. Check the instructions on the journal’s webpage carefully. The tagging details of article opener elements are as follows:

1. `\title[<short-form-of-article-title>]{<article-title>}`

This tag contains two parameters, first one is optional and the second argument is mandatory. By default, the article title is printed as running heads on both odd/even pages. In case of lengthy article title, provide the short form of article title in the optional argument.

2. `\author{<author-name>}`—to be used for the authors other than the corresponding author.

`\author{<author-name>*}`—to be used for the corresponding author who is nominated as being responsible for the manuscript as it moves through the entire publication process. He is the “time keeper” during each phase of the publication process and the primary contact between the journal and all the other authors of the paper.

3. `\address{<address-details>}`—affiliation/address details are provided inside this tag. In case of multiple addresses, just provide sequential Arabic numerals in the optional argument of this tag. This numeral is used to denote the affiliation for the respective authors. In case of single author/address, this optional argument can be ignored. For example, refer below:

`\author{...}`

`\address{...}`

4. `\corresp[*]{...}`— provide corresponding author’s email id inside this tag.
5. `\ORCID{...}`— provide ORCID link with logo inside this tag.
6. The other tags listed below are self-explanatory. Note the ‘received’, ‘revised’ and ‘accepted’ dates are placeholders for the final publication: these can be left blank:

<code>\orgdiv{. . .}</code>	<code>\orgname{. . .}</code>	<code>\orgaddress{. . .}</code>	<code>\country{. . .}</code>	<code>\postcode{. . .}</code>
<code>\street{. . .}</code>	<code>\city{. . .}</code>	<code>\state{. . .}</code>	<code>\abstract{. . .}</code>	<code>\keywords{. . .}</code>
<code>\received{. . .}</code>	<code>\revised{. . .}</code>	<code>\accepted{. . .}</code>		

7. `\maketitle`—this tag is mandatory to print the front matter elements in the output.

9 Main matter elements

9.1 Section headings

The template allows four levels of headings in different styles:

```

\section{<First level heading>}
\subsection{<Second level heading>}
\subsubsection{<Third level heading>}
\paragraph{<Fourth level heading>}

```

To get unnumbered level heads, provide “unnumsec” option to `\documentclass[unnumsec]{ima-authoring-template}`.

9.2 Mathematical formulae

As “amsmath” package provides various features for displayed equations and other mathematical constructs and you are strongly encouraged to use the mark-ups provided by this package. If possible, avoid using manual skips to align an equation.

9.3 Figures and Tables

The standard interface for graphic inclusion is the `\includegraphics` command provided by the `graphicx` package. The “draft” option provided by this package locally switches to draft mode, i.e. does not include the graphic, but leaves the correct space, and prints the filename. This option may be used to save the processing time during compilation. Note that the `\graphicspath` command allows you to declare one or more folders where the `graphicx` package looks for the image files; hence, it is not necessary to write the path into each `\includegraphics` command.

The format used for numbered “figures/tables” is similar to the basic L^AT_EX format:

```
\begin{figure}[t]
\centering
\includegraphics{<image-file-name>}
\caption{<figure caption text>}\label{...}
\end{figure}
```

In case of double column layout, the above format puts figure captions/images to a single column width. To get spanned images, we need to provide the environment `\begin{figure*}... \end{figure*}`.

For the purpose of the sample, we have included the width of images in the optional argument of the `\includegraphics` tag. Please ignore this.

Images exceeding the text width should be set as rotated images. For this, we need to use `\begin{sidewaysfigure}... \end{sidewaysfigure}` instead of the `\begin{figure}... \end{figure}` environment. In case of double column layout, this format puts figure captions/images to single column width. To get spanned rotated images, use

```
\begin{sidewaysfigure*}... \end{sidewaysfigure*}.
```

If the journal requires that you include a graphical abstract, include this as an unnumbered figure directly after the text abstract with no caption, but adding the `\caption` package to the preamble and including the image as follows (note the file name for the graphical abstract):

```
\begin{figure}[t]
\centering
\includegraphics{graphical_abstract.jpg}
\captionsetup{labelformat=empty}
\caption{}
\label{...}
\end{figure}
```

The format for table is as follows:

```
\begin{table}[<float-position>]
\caption{...}\label{<table-label>}
\begin{tabular}{<column-alignment-preamble>}
\toprule
... & ... & ... & ... & ... \\
\midrule
... & ... & ... & ... & \footnotemark{1} \\
... & ... & ... & ... & \\
... & ... & ... & ... & \footnotemark{2} \\
\botrule
\end{tabular}
\footnotetext{...}
```

```

\footnotetext[1]{...}
\footnotetext[2]{...}
\end{table}

```

Command to be used for rotated tables:

```
\begin{sidewaystable}...\end{sidewaystable}
```

To span tables across columns in double column layout:

```
\begin{table*}...\end{table*}
```

To span rotated tables across columns in double column layout:

```
\begin{sidewaystable*}...\end{sidewaystable*}
```

9.4 Lists

The default list commands available in L^AT_EX can be used to set different types of lists:

1. numbered: `\begin{enumerate}...\end{enumerate}`

first level—Arabic numerals;

second level—lowercase alphabet;

third level—lowercase roman numerals;

2. unnumbered: `\begin{unlist}...\end{unlist}`

3. custom list: `\begin{itemize}...\end{itemize}`

first level—bulleted;

second level—bulleted.

Nested lists are allowed for numbered and custom lists.

9.5 Theorem-like environments

For enunciation like environments, we require `amsthm` package.

Refer to the “amsthm” package documentation for more details about the additional features available for new theorem styles. A predefined “proof” environment is available. This environment prints the “Proof” head in italic style and “body text” in Roman style with an open square at the end of each proof environment.

```
\begin{proof}...\end{proof}
```


9.6 Footnotes

Footnotes are produced with the standard \LaTeX command `\footnote{<Some text>}`. This typesets a numerical flag at the location of the footnote command and places the footnote text at the bottom of the page.

9.7 Algorithms, Program codes, and Listings

The packages “algorithm,” “algorithmicx,” and “algpseudocode” are used for setting algorithms in \LaTeX . For algorithms, use the below format:

```
\begin{algorithm}
\caption{<alg-caption>}\label{<alg-label>}
\begin{algorithmic}[1]
...
\end{algorithmic}
\end{algorithm}
```

Refer the above-listed package documentation for more details before setting algorithms.

To set program codes, the “program” package is required and the command to be used is `\begin{program}... \end{program}`.

The command `\begin{lstlisting}... \end{lstlisting}` is used to set “verbatim” like environments. Refer to the “lstlisting” package documentation for more details.

9.8 Cross references

\LaTeX is able to automatically insert hypertext links within a document:

- the `\ref{}` command adds a clickable link to the referred object;
- the `\label{}` command automatically inserts a target;

9.9 Cross citations

To make a citation in the text, use `\citep{...}` for a parenthetical citation (Jones et al., 1990), `\citet{...}` for a textual one, as Jones et al. (1990). Both `\citep` and `\citet` are defined by “natbib” and are thus not standard. The standard \LaTeX command `\cite` should be avoided, because it behaves like `\citet` for author-year citations, but like `\citep` for numerical ones. There also exist the starred versions `\citet*` and `\citep*` that print the full author list, and not just the abbreviated one. All of these may take one or two optional arguments to add some text before and after the citation:

<code>\citet{jon90}</code>	Jones et al. (1990)
<code>\citet[chap.~2]{jon90}</code>	Jones et al. (1990, chap. 2)
<code>\citep{jon90}</code>	(Jones et al., 1990)
<code>\citep[chap.~2]{jon90}</code>	(Jones et al., 1990, chap. 2)
<code>\citep[see][]{jon90}</code>	(see Jones et al., 1990)
<code>\citep[see][chap.~2]{jon90}</code>	(see Jones et al., 1990, chap. 2)
<code>\citest{jon90}</code>	Jones, Baker, and Williams (1990)
<code>\citest{jon90}</code>	(Jones, Baker, and Williams, 1990)

Please refer to the “natbib” package documentation for guidance on other citation commands.

10 Back matter elements

10.1 Appendix

This section is set with a `\appendix` command. All the other commands used to set section heads, tables, and figures inside this section remain the same as the main body text.

10.2 References

The basic bibliography environment is accepted for setting a reference section:

```
\begin{thebibliography}{9}
\bibitem{bib1} ...
\bibitem{bib2} ...
\end{thebibliography}
```

However, BiBTeX is the preferred format for references. BiBTeX automates most of the work involved in references for articles. Using BiBTeX options, both citations and references can be automatically updated to the preferred reference style. That is, you need not apply reference style tags for each element manually; it promotes structured writing. Basically, BiBTeX works with two parts of the references: *content* and *style*. The *content* is stored separately in a plain text database file called .bib, in which each entry is structured to distinguish different types of entries and fields. The *style* and presentation of the database content are processed with the help of BiBTeX program using a style file called .bst (bibliography style file).

You are requested to use the sample bib file “reference.bib” provided as a base for preparing your own .bib file. For the “author-year” citation style, use “abbrvnat” bst and for “numbered” citation style use “plain” bst, by adding the following instructions to the preamble.

1. author-year citation style = `\bibliographystyle{abbrvnat}`
2. numbered citation style = `\bibliographystyle{unsrt}`

Then include your .bib file at the end of your document as shown below:

```
\bibliography{<bib-file-without-extension>}
```

To generate the .bbl file, you should only need to compile \LaTeX / $\text{PDF}\text{\LaTeX}$ once, then $\text{BIB}\text{\TeX}$, then \LaTeX / $\text{PDF}\text{\LaTeX}$ twice more. The resulting bibliography is ready for typesetting with all formatting tags rendered according to the chosen reference style. For more details, please visit <http://www.bibtex.org>.

11 Revision History

Revision State	Revision Date	Version Number	Revision History
00	18 December, 2021	Version 1.0	
00	10 February, 2022	Version 1.1	