

# Author Usage Template for MIT Journals

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**Abstract:** This document presents a number of hints about how to set up your paper in  $\text{\LaTeX}$ . We provide a template file, `imag-ms-template-instr.tex`, that you can use to set up the  $\text{\LaTeX}$  source for your article. An example of the style is the special `{abstract}` environment used to set up the abstract you see here.

## 1 Introduction

In this file, we present some tips and sample mark-up to ensure that your  $\text{\LaTeX}$  file has the smoothest possible journey from review manuscript to published paper. We focus here particularly on issues related to headings, citations, math, tables, and figures, as those tend to be the biggest sticking points. Please use the source file for this document, `imag-ms-template-instr.tex`, as a template for your manuscript, cutting and pasting your content into the file at the appropriate places.

## 1.1 Front Matter

Please use the below tags for the article front matter:

```
\title{Article Title}

\author{Author 1,$^{1\ast}$ Author 2,$^{1}$ Author 3$^{2}$}\
{\small $^{1}$Department of Chemistry, University of Wherever,}\
{\small An Unknown Address, Wherever, ST 00000, USA}\
{\small $^{2}$Another Unknown Address, Palookaville, ST 99999, USA}\
{\small $^{\ast}$Correspondence: jsmith@wherever.edu}
}

\maketitle
```

## 1.2 Abstract

Use the tag:

```
\begin{abstract}
  This document presents a number of hints about how to set up your
  paper in \LaTeX. We provide a template file,
  \texttt{imag-ms-template-instr.tex}, that you can use to set up the
  \LaTeX\ source for your article. An example of the style is the special
  \texttt{\{abstract\}} environment used to set up the abstract you
  see here.
\end{abstract}
```

## 1.3 Headings

Use the standard tags `\section`, `\subsection`, `\subsubsection`, `\paragraph`, and `\subparagraph` for the Headings H1, H2, H3, H4, and H5, respectively.

## 1.4 Handling Math, Tables, and Figures

We suggest using the `mathtools.sty` file to get various display math styles. A few of the codes are given below for easy reference:

---

`equation`

`align`

`\[...\]` or `equation*`

`gather`

Various types of matrices, e.g., `pmatrix`, `bmatrix`, `vmatrix`, `smallmatrix`, `alignat`, etc.

---

## 1.5 Tables

We suggest using the `threeparttable.sty` file to format the tables and their notes properly. Examples are given below:

`\begin{table}`

`\begin{threeparttable}`

`\caption{Time of the Transition Between Phase 1 and Phase 2\tnote{$a$}}`

`\label{tab:label}}`

`\begin{tabular}{@{}ll}`

`\toprule`

Run & Time (min) \\

`\midrule`

`\textit{l}1` & 260 \\

`\textit{l}2` & 300 \\

`\textit{l}3` & 340 \\

`\textit{h}1` & 270 \\

`\textit{h}2` & 250 \\

`\textit{h}3` & 380 \\

`\textit{r}1` & 370 \\

`\textit{r}2` & 390 \\

`\bottomrule`

`\end{tabular}`

```

\begin{tablenotes}[flushleft]\footnotesize
\item[{$a$}]Table note text here.
\end{tablenotes}
\end{threeparttable}
\end{table}

```

## Output

Table 1: Time of the Transition Between Phase 1 and Phase 2<sup>a</sup>

Run	Time (min)
<i>l</i> 1	260
<i>l</i> 2	300
<i>l</i> 3	340
<i>h</i> 1	270
<i>h</i> 2	250
<i>h</i> 3	380
<i>r</i> 1	370
<i>r</i> 2	390

<sup>a</sup> Table note text here.

## Spanning rules

Use `\cmidrule` to obtain spanning of rules from column to column. Usage is

`\cmidrule{fromcolumn-tocolumn}`, e.g., `\cmidrule{2-3}`.

## 1.6 Figures

Figure callouts within the text should be in the form of L<sup>A</sup>T<sub>E</sub>X references; for example, `\ref{fig1}`.

For inclusion of figures (e.g., Fig 1), please use code such as:

```

\begin{figure}[htbp]\begin{center}\includegraphics[width=0.2\textwidth]{figure}
\caption{Example caption text.}
\label{example_figure}\end{center}\end{figure}

```

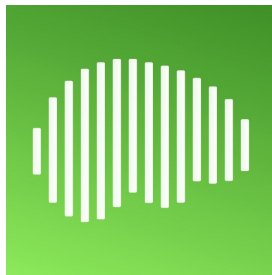


Figure 1: Example caption text.

Please use `\begin{sidewaystable}...\end{sidewaystable}` and `\begin{sidewaysfigure}...\end{sidewaysfigure}` to get rotating figures/tables.

## 2 Algorithms

For Algorithms, please use the standard  $\text{\LaTeX}$  supporting file `algorithm2e.sty`; the format and the output are given below:

```
\begin{algorithm}[h!]
\SetAlgoLined
\SetKwFunction{IL}{InitializeDistance}
\SetKwFunction{PL}{PropagateInsertion}
\SetKwFunction{MIN}{Min}
\SetKwFunction{MX}{Max}
\SetKwFunction{TOP}{Top}
\SetKwFunction{Push}{Push}
\SetKwFunction{Pop}{Pop}
\SetKwFunction{Append}{Append}
\SetKwData{Queue}{Queue}
\KwResult{The length of shortest path from  $s$  to  $t$ }
 $\text{\$PreviousLayer} = [s]$ \;
 $s.\text{distance} = 0$ \;
\For(\tcc*[f]{Do the computation layer by layer}){ $i = 1$  \KwTo  $m$ }{
   $\text{\$CurrentLayer} = [(i, v_1), (i, v_{\{2\}}), \ldots, (i, v_{\{n\}}), (i, k)]$ \;
   $\text{\$x.distance} = \infty$  \ \forall  $x \in \text{CurrentLayer}$ \;
```

```

\IL{PreviousLayer,CurrentLayer}\;
\PL{CurrentLayer}\;
$PreviousLayer = CurrentLayer$\;
}
\KwRet{\MIN{PreviousLayer.distance}}\;
\caption{Algorithm for sequence to graph alignment}
\label{algo:linear}
\end{algorithm}

```

## Output

---

### Algorithm 1: Algorithm for sequence to graph alignment

---

**Result:** The length of shortest path from  $s$  to  $t$

$PreviousLayer = [s];$

$s.distance = 0;$

**for**  $i = 1$  **to**  $m$  **do** /\* Do the computation layer by layer \*/

$CurrentLayer = [(i, v_1), (i, v_2), \dots, (i, v_n), (i, k)];$

$x.distance = \infty \forall x \in CurrentLayer;$

InitializeDistance( $PreviousLayer, CurrentLayer$ );

PropagateInsertion( $CurrentLayer$ );

$PreviousLayer = CurrentLayer;$

**end**

**return** Min( $PreviousLayer.distance$ );

---

## 3 Lists

Please use the standard tags for Numbered lists and Bulleted lists; for example,

### Numbered lists

```
\begin{enumerate}
```

```
\item Text for first-level numbered lists text text text text
```

```
Text for first-level numbered lists text text text text:
```

```
\begin{enumerate}
```

```
\item Text for second level numbered lists text text text text
```

```

Text for second level numbered lists text text text text
\item Text text text text Text for second level numbered lists
text text text text
\end{enumerate}
\item Text text text text Text for first-level numbered lists
text text text text
\end{enumerate}

```

## Output

1. Text for first-level numbered lists text text text text Text for first-level numbered lists text text text text:
  - (a) Text for second level numbered lists text text text text Text for second level numbered lists text text text text
  - (b) Text text text text Text for second level numbered lists text text text text
2. Text text text text Text for first-level numbered lists text text text text

## Bulleted lists

```

\begin{itemize}
\item Text for first-level bulleted lists text text text text
Text for first-level bulleted lists text text text text
\begin{itemize}
\item text for second level bulleted lists text text text text
Text for second level bulleted lists text text text text
\item text text text text Text for second level bulleted lists
text text text text
\end{itemize}
\item Text text text text Text for first-level bulleted lists
text text text text
\end{itemize}

```





## 6 Enunciation or Math Heads

Generally theorem, lemma, etc., are called Enunciation or Math heads. In this template, we define some standard enunciations (theorem, lemma, corollary).

### Sample Input/Output

#### 6.1 Input

```
\begin{theorem}
This is test for math head ‘‘Theorem’’ text text text text.
\end{theorem}
```

#### 6.2 Output

**Theorem 1.** *This is test for math head “Theorem” text text text text.*

#### 6.3 Define Own Math Heads/Enunciation

You are allowed to define your own enunciations; the format is given below:

```
\newtheorem{short name of the head}{Head to Display}
```

#### Example

If you need to define a group of text under the head “Proposition,” then you have to define it as

```
\newtheorem{proposition}{Proposition}
```

**Proposition 1.** *This is a test for math head “Proposition” text text text text*

## 6.4 Unnumbered Math Heads/Enunciation

Just introduce `*`, which makes the numbered math head text into an unnumbered math head; for example,

```
\begin{theorem*}
```

```
This is a test for unnumbered math head ‘‘Theorem’’ text text text text
```

```
\end{theorem*}
```

**Theorem.** *This is a test for unnumbered math head “Theorem” text text text text*

## 7 Bibliography/References with APA Style

As per MIT standards, we fixed the Reference style APA in the template with the combination of the supporting file `biblatex` and `natbib` options, which help to achieve various types of bibliography cross links. Those details are given below:

### 7.1 Formatting Citations

Type	Results
<code>\citet{ref2}</code>	Goossens et al. (1993)
<code>\citet[chap. 2]{ref2}</code>	Goossens et al. (1993, chap. 2)
<code>\citep{ref2}</code>	(Goossens et al., 1993)
<code>\citep[chap. 2]{ref2}</code>	(Goossens et al., 1993, chap. 2)
<code>\citep[see []]{ref2}</code>	(see Goossens et al., 1993)
<code>\citep[see [chap. 2]{ref2}</code>	(see Goossens et al., 1993, chap. 2)
<code>\citet*{ref2}</code>	Goossens, Mittelbach, and Samarian (1993)
<code>\citep*{ref2}</code>	(Goossens, Mittelbach, & Samarian 1993)

**Note:** Please use **biber** (biber.exe in Windows) to get better output for References.

### 7.2 Example Citations

See Einstein, 1905 and Goossens et al., 1993; Knuth, 1986. Also see Chen et al., 2023.

## 8 Note to User

We have already included almost all the required .sty files in the  $\text{\LaTeX}$  template `imag-ms-template.cls`; hence, there is no need to call those in your .tex application files.

### General Notes

This template will work in most recent  $\text{\TeX}$  distributions (e.g., MiKTeX, TeXLive) with any type of  $\text{\TeX}$  engines, such as  $\text{\LaTeX}$ , PDF $\text{\LaTeX}$ , Xe $\text{\LaTeX}$ , and Lua $\text{\LaTeX}$ , as well as in all types of OS, such as MS-Windows, Mac OS X, and Linux. It will also work well in Overleaf.

### Data and Code Availability

Data and Code Availability text (mandatory unless there is no data or code used).

### Author Contributions

Author Contributions text (mandatory).

### Funding

Funding text (optional).

### Declaration of Competing Interests

Declaration of Competing Interests text (mandatory).

## Acknowledgements

Acknowledgements text (optional).

## Supplementary Material

Supplementary Material (created during production as a web link to online material).

## References

- Chen, C.-Y., Leys, G., Bracci, S., & Op de Beeck, H. (2023). The representational dynamics of the animal appearance bias in human visual cortex are indicative of fast feedforward processing. *Imaging Neuroscience*, 1. [https://doi.org/10.1162/imag\\_a\\_00006](https://doi.org/10.1162/imag_a_00006)
- Einstein, A. (1905). Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]. *Annalen der Physik*, 322(10), 891–921. <http://dx.doi.org/10.1002/andp.19053221004>
- Goossens, M., Mittelbach, F., & Samarin, A. (1993). *The L<sup>A</sup>T<sub>E</sub>X companion*. Addison-Wesley.
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## A Appendix

Appendices (optional).