

## Author Guidelines for PLoS L<sup>A</sup>T<sub>E</sub>X Submissions

Thank you for your interest in submitting your work to PLoS. This document will help you prepare your L<sup>A</sup>T<sub>E</sub>X formatted manuscript. Part of the production process includes the use of automated utilities to convert your L<sup>A</sup>T<sub>E</sub>X manuscript into a Word document. In order for the conversion process to go as smoothly as possible, please limit the use of non-standard L<sup>A</sup>T<sub>E</sub>X packages and formatting.

This document is not intended to teach authors how to create manuscripts using L<sup>A</sup>T<sub>E</sub>X. This document does contain information on how to use the PLoS L<sup>A</sup>T<sub>E</sub>X template and the PLoS.bst file to format references. Use the Author Guidelines and this document to properly format your manuscript for submission to PLoS.

### L<sup>A</sup>T<sub>E</sub>X Version

You are required to use L<sup>A</sup>T<sub>E</sub>X2e. If you do not have the latest version of L<sup>A</sup>T<sub>E</sub>X, you can download it from a number of sites including <http://www.latex-project.org/>.

Authors who have prepared their manuscripts using L<sup>A</sup>T<sub>E</sub>X should upload the file in PDF format for use during the review process. If the article is accepted for publication, the .tex, .bbl, .aux, .dvi and PDF files will be required as a zipped file. Do not upload the zipped file until you are notified by PLoS Production. Do not include figures or supporting information files in the L<sup>A</sup>T<sub>E</sub>X package. Figures must be uploaded as separate files in TIFF or EPS formats, not contained in the zipped file.

### Initial Submission

Upload the PDF as your Article File, containing your manuscript text, references, figure legends and tables. Only this file will be asked for in its .tex form; all other files should follow our Author Guidelines exactly. Figures should be uploaded as separate files in TIFF or EPS format; figure captions should appear at the end of the article file. Supporting Information prepared in L<sup>A</sup>T<sub>E</sub>X should be submitted as PDF files and will be published as PDF files.

Upload Supporting Information files individually. Do not refer to sections of your manuscript by the L<sup>A</sup>T<sub>E</sub>X numbered headings; all articles will be produced to conform to PLoS style and these numbers will be removed. Refer to sections by name, such as “Materials and Methods”, “Results”, etc. The section headings may vary depending upon the PLoS journal, please refer to the Author Guidelines for detailed information on section headings and requirements.

## On Acceptance

On acceptance, you will be asked to upload your .tex files and formatting information as a zipped file (.zip, .tar.gz, .tar.bz2). Please upload this as a new Supporting Information file. Please also update your PDF Article File #1 with the revised PDF file. In this zipped file, please include:

- Authors' LaTeX source file (.tex)
- Author's Device Independent file (.dvi).
- Any and all Auxiliary files (.aux).
- Any bbl, bib, ind or idx files (or, attached at bottom of the .tex file).
- Revised PDF

These files are required so that we can fully verify the information in your submission.

**Note:** When a LaTeX paper begins the production process, your .tex file will be validated to ensure that the integrity of the PLoS template has been maintained. This validation process helps to reduce conversion errors and the length of time it takes to publish the paper. If you have not followed the template format, your manuscript may be sent back to you for corrections.

## PLoS Provided Files

- `plos_template.tex`: For your convenience, PLoS provides a template for L<sup>A</sup>T<sub>E</sub>X submissions below. Use this template file as an empty framework for your submission. Do not change or remove elements from the template.
- `plos2009.bst`: BibTeX style sheet. Use this file to specify the formatting of your BibTeX file. This will ensure that your references are generated in the correct format.
- `plos_Latex_Instructions.PDF`: PLoS provides these instructions as a PDF file. Refer to this file if you have questions specific to using the PLoS LaTeX template.

## Template Format

### Preamble

Please do not edit any portion of the preamble, except for the following two areas (which are preceded by the comments EDIT HERE \*\*):

- `\markboth{}{}` - A running title of 50 characters or less should be included in the preamble section of the template. Please insert your running title twice, once between each set of braces.

- Macros - Insert your custom macros in the specified MACROS SECTION. Please refer to the subsequent section on Macros.

## Title, Authors and Affiliations

The title, author names and institutions are entered *after* the `\begin{document}` environment.

- Title - The title should be fewer than 150 characters. Titles should be presented in title case, meaning that all words except for prepositions, articles, and conjunctions should be capitalized.
- Authors and Affiliations - Provide the first names or initials (if used), middle names or initials (if used), surnames, and affiliations or department, university or organization, city, state/province (if applicable), and country for all authors. One of the authors should be designated as the corresponding author. It is the corresponding author's responsibility to ensure that the author list, and the summary of the author contributions to the study, is accurate and complete. If the article has been submitted on behalf of a consortium, all consortium members and affiliations should be listed after the Acknowledgments.

```

\begin{flushleft}
{\Large
\textbf{Title}
}
//
Author1$^{1}$,
Author2$^{2}$,
Author3$^{3, \ast}$
//
\textbf{1} Author1 Dept/Program/Center, Institution Name, City, State, Country
//
\textbf{2} Author2 Dept/Program/Center, Institution Name, City, State, Country
//
\textbf{3} Author3 Dept/Program/Center, Institution Name, City, State, Country
//
$\ast$ E-mail: Corresponding author@institute.edu
\end{flushleft}

```

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The LaTeX above is an example of the “Title” section and will be formatted as follows:

### Title

Author1<sup>1</sup>, Author2<sup>2</sup>, Author3<sup>3,\*</sup>

**1** Author1 Dept/Program/Center, Institution Name, City, State, Country

**2** Author2 Dept/Program/Center, Institution Name, City, State, Country

**3** Author3 Dept/Program/Center, Institution Name, City, State, Country

\* E-mail: Corresponding author@institute.edu

### Abstract

The abstract of the paper should be succinct; it should not exceed 250-300 words. Authors should mention the techniques used without going into methodological detail and should

summarize the most important results. The abstract is conceptually divided into the following three sections: Background, Methodology/Principal Findings, and Conclusions/Significance. Please avoid specialist abbreviations and do not include any citations.

### **Author Summary**

We ask that all authors of research articles include a 150-200 word non-technical summary of the work as part of the manuscript to immediately follow the abstract. This text is subject to editorial change, should be written in the first-person voice, and should be distinct from the scientific abstract. Aim to highlight where your work fits within a broader context; present the significance or possible implications of your work simply and objectively; and avoid the use of acronyms and complex terminology wherever possible. The goal is to make your findings accessible to a wide audience that includes both scientists and non-scientists. Authors may benefit from consulting with a science writer or press officer to ensure they effectively communicate their findings to a general audience.

### **Introduction**

The introduction should put the focus of the manuscript into a broader context. As you compose the introduction, think of readers who are not experts in this field. Include a brief review of the key literature. If there are relevant controversies or disagreements in the field, they should be mentioned so that a non-expert reader can delve into these issues further. The introduction should conclude with a brief statement of the overall aim of the experiments and a comment about whether that aim was achieved.

### **Results**

The results section should provide details of all of the experiments that are required to support the conclusions of the paper. There is no specific word limit for this section, but details of experiments that are peripheral to the main thrust of the article and that detract from the focus of the article should not be included. The section may be divided into subsections, each with a concise subheading. Large datasets, including raw data, should be submitted as supporting files; these are published online alongside the accepted article. The results section should be written in the past tense.

### **Discussion**

The discussion should spell out the major conclusions of the work along with some explanation or speculation on the significance of these conclusions. How do the conclusions affect the existing assumptions and models in the field? How can future research build on these observations? What are the key experiments that must be done? The discussion should be concise and tightly argued. The results and discussion may be combined into one section, if desired.

### **Materials and Methods (also called "Methods" or "Model")**

This section should provide enough detail for reproduction of the findings. Protocols for new methods should be included, but well-established protocols may simply be referenced. While

we do encourage authors to submit all appendices, detailed protocols, or details of the algorithms for newer or less well-established methods, please do so as Supporting Information files. These are not included in the typeset manuscript, but are downloadable and fully searchable from the HTML version of the article.

### **Acknowledgments**

People who contributed to the work but do not fit the criteria for authors should be listed in the Acknowledgments, along with their contributions. You must also ensure that anyone named in the Acknowledgments agrees to being so named.

Details of the funding sources that have supported the work should be confined to the funding statement provided in the online submission system. Do not include them in the Acknowledgments.

### **References**

The use of BibTeX is the easiest way to include citations in your article. Please use the provided BibTeX style file `plos2009.bst`. To reference citations use the `\cite` command.

Only published or accepted manuscripts should be included in the reference list. Meetings abstracts, conference talks, or papers that have been submitted but not yet accepted should not be cited. Limited citation of unpublished work should be included in the body of the text only. All personal communications should be supported by a letter from the relevant authors.

PLoS uses the numbered citation (citation-sequence) method. References are listed and numbered in the order that they appear in the text. In the text, citations should be indicated by the reference number in brackets. Multiple citations within a single set of brackets should be separated by commas. Where there are three or more sequential citations, they should be given as a range. Example: "...has been shown previously [1,4-6,22]." Make sure the parts of the manuscript are in the correct order for the relevant journal before ordering the citations. Because all references will be linked electronically as much as possible to the papers they cite, proper formatting of the references is crucial.

### **Figures**

Please submit your figures in TIFF or EPS format. Because your LaTeX file is converted to multiple publication formats, PLoS requires that you upload your figures as separate files. See the Figure and Table Guidelines for information on creating high-quality figures.

### **Figure Legends**

Figure legends should be included at the end of the manuscript file. The aim of the figure legend should be to describe the key messages of the figure, but the figure should also be discussed in the text. An enlarged version of the figure and its full legend will often be viewed in a separate window online, and it should be possible for a reader to understand the figure

without switching back and forth between this window and the relevant parts of the text. Each legend should have a concise title of no more than 15 words. The legend itself should be succinct, while still explaining all symbols and abbreviations. Avoid lengthy descriptions of methods.

```
\begin{figure} [!ht]
\begin{center}
%\includegraphics [width=4in] {figure_name.1.eps}
\caption{
\textbf{Bold the first sentence.} Rest of figure caption. Caption
should be left justified, as specified by the options to the caption
package.
}
\label{Figure_label}
\end{center}
\end{figure}
```

-----

For example, the LaTeX above will create the following figure legend.

Figure 1: **Bold the first sentence.** Rest of figure caption. Caption should be left justified, as specified by the options to the caption package.

### Tables

Tables should be included at the end of the manuscript file and cited sequentially in the text. All tables should have a concise title. Footnotes can be used to explain abbreviations. Citations should be indicated using the same style as outlined above. Tables occupying more than one printed page should be avoided, if possible. Larger tables can be published as online supporting information. Tables must be cell-based; do not use picture elements, text boxes, tabs, color, or returns in tables. Please ensure that all tables conform to our Guidelines for Figure and Table Preparation when preparing them.

```
\begin{table} [!htpb]
\begin{flushleft}
\caption{\bf{Table Caption}}
\end{flushleft}
\begin{tabular*}{\hsize}{@{\extracolsep{\fill}}cclcc}
Pathway
& Portal
& Portal residues
& Entries
& Escapes \\
\hline
Major
& 1 & \textbf{64 67 154} & & & 5 & 7 \\
(31) & & & & & & \\
& 2 & 101 104 139 143 & \bf146 & & 1 & 4 \\
& 3 & {\bf71} 74 75 82 85 89 & & & 5 & 3 \\
& 4 & \textbf{43 45} & & & 3 & 1 \\
& 5 & \textbf{34} 51 55 & & & 0 & 2 \\
\hline
\end{tabular*}
\begin{flushleft}
Table description
\end{flushleft}
```

```
\label{tab:table1}
\end{table}
```

-----

For example: The LaTeX above will create the following table.

Table 1: **Table Caption**

Pathway	Portal	Portal residues	Entries	Escapes
Major	1	<b>64 67 154</b>	5	7
(31)	2	101 104 139 143 <b>146</b>	1	4
	3	<b>71</b> 74 75 82 85 89	5	3
	4	<b>43 45</b>	3	1
	5	<b>34</b> 51 55	0	2

## Macros

While we are able to handle the majority of user-defined macros, we would appreciate if you please keep the following in mind:

- **Keep it simple.** Place macros under the “macros” section of the PLoS L<sup>A</sup>T<sub>E</sub>X template. Group macros by function, and put each macro on a separate line. Having all macros in a single place makes it easier to detect any problems or inconsistencies when processing your manuscript.
- **Do not use `\def`.** Define macros with `\newcommand` and use `\renewcommand` sparingly. “`\newcommand`” checks against existing macro definitions and generates an error message if a macro name is in use. By contrast, “`\def`” overwrites any existing definition; this will cause unexpected production errors during the conversion of your L<sup>A</sup>T<sub>E</sub>X paper to Web and PDF formats.
- **Avoid one-letter macros.** Many one-letter sequences have predefined meanings and thus cause conflicts if you try to use them for your own macros. Most of these one-letter macros are part of the TeX core, and usually not documented in Latex books. If a macro is not listed in the index of a Latex book, it does not mean that it is not in use.
- **Avoid defining macros/abbreviations for `\begin{...}` or `\end{...}`.** As recommended, “`\begin{...}`” and “`\end{...}`” commands are best placed on lines by themselves. L<sup>A</sup>T<sub>E</sub>X editors typically recognize the `\begin{...}` and `\end{...}` commands and use these to appropriately colorize the text, but if you use abbreviations, that feature might be lost.

## Equations

Please use the `\{equation}` environment to center your equations and enumerate on the right side. Use the `\{label}` inside the equation environment to reference your equations in

the main text.

You can reference the equation (e.g. Eqn `\ref{eqn1}`)

An inline equation: `\beta = \frac{\Gamma}{2\sigma}`

```
\begin{equation}
\label{eqn1}
R^2(L, l_K) = \frac{l_K^2}{2} \left( \frac{2L}{l_K} + e^{-2L/l_K} - 1 \right),
\end{equation}
```

```
\begin{equation}
\label{eqn2}
dv=f(v)dt+\sigma dw,
\end{equation}
```

-----  
The LaTeX equation examples will generate the following output.

You can reference the equation (e.g. Eqn 1).

An inline equation:  $\beta = \frac{\Gamma}{2\sigma}$

$$R^2(L, l_K) = \frac{l_K^2}{2} \left( \frac{2L}{l_K} + e^{-2L/l_K} - 1 \right), \quad (1)$$

$$dv=f(v)dt+\sigma dw, \quad (2)$$

## Accented Characters

To avoid issues with the processing of your L<sup>A</sup>T<sub>E</sub>X paper, enter accented characters using the appropriate L<sup>A</sup>T<sub>E</sub>X syntax. Do not use the inputenc package that allows authors to directly type accented characters. The preferred method for entering accented characters is `\'e` rather than `é`.