

# Author's Guide to the Symposium on Innovations in Computer Science Template (`ics.cls`)

Ruini Xue  
xueruini@gmail.com

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## Abstract

This guide explains how to use the ICS L<sup>A</sup>T<sub>E</sub>X template. Since the template follows L<sup>A</sup>T<sub>E</sub>X conventions, it's quite easy to use. Besides, we borrow some texts from `sigplan-guide.pdf`.

## 1 Introduction

The ICS style is a L<sup>A</sup>T<sub>E</sub>X class file that you use to prepare papers for *Symposium on Innovations in Computer Science* conference proceedings.

The ICS class file is a variant of the standard L<sup>A</sup>T<sub>E</sub>X article style. It is based on `article.cls` and both replaces and adds to its features. This authors guide assumes you are familiar with L<sup>A</sup>T<sub>E</sub>X and describes the features of the ICS class file that are new or different.

### 1.1 What You Need

You only need three files to use the ICS class file:

- The L<sup>A</sup>T<sub>E</sub>X class file, `ics.cls`
- This document, `ics-guide.pdf`
- A sample file, `sample.tex`, to help you get started preparing your paper.

## 2 Document Prolog

This section describes the commands used in the prolog of your paper. The prolog is the portion of the L<sup>A</sup>T<sub>E</sub>X source file that precedes the text of the paper.

Table 1: Packages used by the ICS class file.

Name	Description
amsmath,amssymb	AMS Math package
graphicx	insert graphics
paralist	refined lists
subfig, caption	(sub)float captions
times	text fonts
natbib	bibliography and reference format

## 2.1 Example

```
\documentclass{ics}

% \usepackage{mypackage}

\begin{document}
... text of the paper ...
\end{document}
```

## 2.2 The Document Class

The `\documentclass` command names the ICS class file and lists any desired options. By now, we do not provide any specific option.

## 2.3 Packages

If you need to use any  $\text{\LaTeX}$  packages, these are specified immediately following the `\documentclass` command. Table 1 lists the packages that are used by the ICS class.

## 2.4 Definitions

If you need any macro definitions for your paper, these should appear immediately before the `\begin{document}` command that indicates the start of the text of the paper. It is best to use `\newcommand` to defined macros, rather than `\def`, to ensure that existing macros are not accidentally redefined.

## 2.5 Texts

The text of your paper is enclosed between `\begin{document}` and `\end{document}` environment that follows the prolog. Section 4 describes the commands that produce the title, and author lists on the first page of the paper. These commands appear first in the text.

### 3 Structure of the Document

We require the material appearing between `\begin{document}` and `\end{document}` to be displayed over two columns. Furthermore, the structure of the article must be as follows:

- Text of the paper
- Acknowledgment
- Appendix (optional)
- Bibliography

### 4 Title and Associated Information

This section describes the commands used to produce the title page of your paper.

#### 4.1 Example

The following example presents many of the commands necessary to produce the title page of your paper. Subsequent sections will discuss the commands in detail.

```
\begin{document}
\title{A Sample of Symposium on Innovations in Computer Science}

\author{%
  Ruini Xue$^{1}$
  \and
  Wenguang Chen$^{1}$
  \and
  Hong Jiao$^{2}$}

\address{%
  $^{1}$Tsinghua University, Beijing 100084, China
  \and
  $^{2}$Tsinghua University Press, Beijing 100084, China}

\email{%
  xueruini@gmail.com
  \and
  cwg@tsinghua.edu.cn
  \and
  jiaoh@tup.tsinghua.edu.cn}
```

```

\begin{abstract}
...abstract texts...
\end{abstract}

\keywords{word1; word2; word3; and word4}

%Important: do call \maketitle after abstract and keywords!!!
\maketitle

```

## 4.2 Title

The following commands are used to provide the title for your paper.

- `\title{title texts}`

This command specifies the title of your paper. You can use the linebreak (`\`) command to break lines in the title.

## 4.3 Authors

The following command is used to specify authors and related information of your paper.

- `\author{author1 \and author2...}`

This command specifies the names of authors of your paper. Use `\and` to separate different authors<sup>1</sup>. If the authors' affiliations are different, group authors of the same institute with superscript as following:

```

\author{%
  Ruini Xue$^{1}$
  \and
  Wenguang Chen$^{1}$
  \and
  Hong Jiao$^{2}$}

```

- `\address{address1 \and address2...}`

This command specifies the affiliations of the authors. If they are grouped in the `\author` command, please make sure the superscripts are consistent.

- `\email{email1 \and email2...}`

This command specifies the emails of the authors. Different from the previous two commands, list each author's email. Do not use superscripts to group emails.

---

<sup>1</sup>`\and` is also used to separate affiliations and emails.

Table 2: Headings Hierarchy.

Command	Level
<code>\section{title}</code>	1
<code>\section{title}</code>	2
<code>\section{title}</code>	3
<code>\paragraph{title}</code>	4
<code>\subparagraph{title}</code>	5

- `\begin{abstract}... \end{abstract}`

This environment includes the abstract for your paper.

- `\keywords{word1; word2; word3...}`

This command specifies the key words of your paper. Separate individual key words with semicolon.

- `\maketitle`

This command must appear following the keywords in order to typeset the top of the title page.

## 5 Hierarchy

Table 2 describes the commands that are used to produce hierarchical headings in your paper. They strictly follows the L<sup>A</sup>T<sub>E</sub>X conventions, so their corresponding star forms produce non-numbered headings.

## 6 Figures and Tables

A numbered floating figure is coded in this fashion:

```
\begin{figure}
\centering
... content ...
\caption{Foundational framework of the snork mechanism.}
\label{fig-ffsm}
\end{figure}
```

This produces a figure with its content at the top and its caption at the bottom.

A numbered floating table is coded as follows:

```

\begin{table}
\centering
\caption{Critical parameters of the snork mechanism.}
\label{tab-cpsm}
\begin{tabular}{...}
... tabular content ...
\end{tabular}
\end{table}

```

This produces a table with its tabular material at the bottom and its caption at the top. We recommend not to use vertical borders in tables if possible, but this is not mandatory.

Both figures and tables accept the `h`, `t`, `b`, `p` options. If the figures or tables are too big to fit in one column, please use their corresponding star forms (`figure*` and `table*`) to place figures and tables over two columns.

## 7 Bibliography

You can write the bibliography one item by one item like this:

```

\begin{thebibliography}{99}
\bibitem{xue08} Ruini X, Wenguang C, Weimin Z. CprFS: A User-level File System
to Support Consistent File States for Checkpoint and Restart. 22nd ACM
International Conference on Supercomputing (ICS'08), 114-223, June 7-12, 2008.

\bibitem{tex} Knuth D~E. The {\TeX} Book. 15th ed. Reading, MA: Addison-Wesley
Publishing Company, 1989

\bibitem{xue09} Ruini X, Xuezheng L, Ming W, Zhenyu G, Wenguang C, Weimin Z,
Zheng Z, Geoffery M~V. MPIWiz: Subgroup Reproducible Replay of MPI
Applications. 14th ACM SIGPLAN Symposium on Principles and Practice of
Parallel Programming (PPoPP'09), 251-260, February 14-18, 2009.

\bibitem{Chafik94} {Chafik El Idrissi} M, Roney A, Frigon C, et~al. Measurements
of total kinetic-energy released to the  $\{N=2\}$  dissociation limit of  $\{H\}_2$ 
--- evidence of the dissociation of very high vibrational  $\{R\}$ ydberg states of
 $\{H\}_2$  by doubly-excited states. Chemical Physics Letters, 1994,
224(10):260--266

\bibitem{MellingerR96} Mellinger A, Vidal C~R, Jungen C. Laser reduced
fluorescence study of the carbon-monoxide nd triplet  $\{R\}$ ydberg
series-experimental results and multichannel quantum-defect analysis.
J. Chem. Phys., 1996, 104(5):8913--8921

\bibitem{NPB2} Woo A, Bailey D, Yarrow M, et~al. The  $\{NAS\}$  Parallel Benchmarks
2.0. Technical report, The Pennsylvania State University CiteSeer Archives,

```

```
December~05, 1995. \url{http://www.nasa.org/}  
\end{thebibliography}
```

Our recommendation is to manage and generate the bibliography with Bib<sub>T</sub>E<sub>X</sub> as following:

```
\bibliographystyle{unsrtnat}  
\bibliography{bibfile}
```

The printer for ICS proceedings wants the bibliography to be included in your main L<sup>A</sup>T<sub>E</sub>X file. If you generate the bibliography with Bib<sub>T</sub>E<sub>X</sub>, you should then merge the resulting .bbl file into the main file.