

Journal of the Royal Statistical Society style guide

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[Received September 1998. Revised October 1998]

Summary. This document explains how authors should use the *Statistics Journals* L^AT_EX styles in order to submit L^AT_EX versions of their papers. The file `statsoc.cls` encapsulates the most important aspects of the style and should be used. Also provided is the B_IB_TE_X style file, `chicago.bst`, that can be used to generate references to style automatically. This document is not meant to replace the standard L^AT_EX reference book, Lamport (1994), which all authors should be familiar with before proceeding.

Keywords: L^AT_EX; Mathematics; T_EX; Typesetting

1. Introduction

To use these files we assume that you have a basic T_EX installation (including the necessary files to run L^AT_EX). Along with this file (`statsoc.pdf`) you should also have received:

- (a) `statsoc.cls`—the L^AT_EX 2_ε class file.
- (b) `amssym.tex`, `amssym.def`—allows access to the extra symbols and fonts of the American Mathematical Society.
- (c) `chicago.bst`—B_IB_TE_X style file for references.
- (d) `natbib.sty`—L^AT_EX package for generating author–year references.

Please note that all these files are plain ASCII files.

These files should be placed in the T_EX search directory where they will be picked up automatically.

2. Template

The mark-up of documents must conform to the following standard L^AT_EX layout:

```
\documentclass{statsoc}
<preamble>
\begin{document}
<main body>
\end{document}
```

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Please note that, if you have MathTime fonts available in your system, you can use `\documentclass[mathtime]{statsoc}`, which will give you an output closer to the final look of the paper.

2.1. *<preamble>*

The commands that appear here are to do with the make-up of the title page. Macros are needed for the article title, author names, and their affiliations:

```
\title[Short title]{Statistics Journal Style Guide}

\author[Author 1 {\it et al.}]{Author 1}
\address{Affiliation,
         City,
         Country.}
\email{Author@emailaddress.com}
\author{Author 2}
\address{Affiliation,
         City,
         Country.}
```

The `Short authors` and `Short title` are the text that appear in the running headers.

One or more `\author{...}` declarations can be given; similarly an `\address{...}` can be given for each `\author`.

Please note that *all* definitions should be placed in the preamble before the `\begin{document}` statement. This makes it much easier to see the extent of a macro and will speed up the processing of your paper.

2.2. *<main body>*

The main body is actually made up of several sections. The initial text is usually an abstract which is coded as follows:

```
\begin{abstract}
  Abstracts are meant to give a brief flavour of the article.
  \ldots\ something here just to end the sentence.
\end{abstract}
```

and this produces

Summary. Abstracts are meant to give a brief flavour of the article. ... something here just to end the sentence.

Keywords may be added using the `\keywords{...}` macro directly after the **abstract** environment. This produces a list of words set as the abstract above.

2.2.1. *Headings*

After the keywords we begin with the headings which are used to introduce each topic.

A level heading	<code>\section{...}</code>	10 pt/12 pt san serif, bold .
B level heading	<code>\subsection{...}</code>	10 pt/12 pt san serif, <i>italic</i> .
C level heading	<code>\subsubsection{...}</code>	10 pt/12 pt <i>italic</i> .

2.2.2. Lists

A list of items can be produced using the standard L^AT_EX environments. For example, the list

- (a) A useful list of things to do.
- (b) This list is almost over.
- (c) Oh well, we will just have to start another one.

which was coded with:

```
\begin{enumerate}
  \item A useful list of things to do.
  \item This list is almost over.
  \item Oh well, we will just have to start another one.
\end{enumerate}
```

2.2.3. Mathematics

For examples on the coding of mathematics in T_EX see the many excellent books on the topic, e.g. Knuth (1986); Lamport (1994).

Simple displayed equations are formatted as follows:

$$\sum_{i=1}^n i = \frac{n(n+1)}{2}$$

where the coding used was

```
\[
  \sum_{i=1}^n i = \frac{n(n+1)}{2}
\]
```

Note that equations are centred, with alignment around the equals sign for multi-line equations, as can be seen in the next example:

$$\begin{aligned} \sum_{i=1}^n i &= 1 + 2 + \dots + n \\ &= \frac{n(n+1)}{2} \end{aligned} \tag{1}$$

The coding used for the previous example was:

```
\begin{eqnarray}
  \sum_{i=1}^n i &= & 1+2+\cdots+n\nonumber\\
  &= & \frac{n(n+1)}{2}
\end{eqnarray}
```

The notion of combinations, $\binom{n}{r}$, can be coded using `\choose`.

The extra $\mathcal{A}\mathcal{M}\mathcal{S}$ -T_EX symbols may be used and are loaded automatically for you to use via the `amssym.tex` package.

Table 1. A table as an example

<i>a</i>	<i>b</i>	<i>c</i>	<i>da</i>	<i>b</i>	<i>c</i>	<i>da</i>	<i>b</i>	<i>c</i>	<i>d</i>
a	b	c	da	b	c	da	b	c	d
a	b	c	da	b	c	da	b	c	d
a	b	c	da	b	c	da	b	c	d
a	b	c	da	b	c	da	b	c	d

2.2.4. Tables and Figures

Table 1 shows an output of the following coding:

```

\begin{table}
  \caption{\label{tab01}A table as an example}
  \centering
  \fbox{%
\begin{tabular}{*{10}{c}}
\em a&\em b&\em c&\em da&\em b&\em c&\em da&\em b&\em c&\em d\\
\hline
a&b&c&da&b&c&da&b&c&d\\
a&b&c&da&b&c&da&b&c&d\\
a&b&c&da&b&c&da&b&c&d\\
a&b&c&da&b&c&da&b&c&d\\
\end{tabular}}
\end{table}

```

Here the `\begin{table}` instructs \TeX that we are about to create a table. `\caption{...}` creates a table caption with the appropriate number. `\centering` aligns the table on the centre of the page horizontally.

`\fbox{...}` gives a thick line box. Horizontal rules are provided by the `\hline`. Each column of the table is then given with columns separated by an `&` and rows separated by `\\`.

To include figures we have preloaded the `graphics.sty` package.

Figures should be placed near where they are first referred to. All figures should be supplied as `.tif` or `.eps` (PostScript) files. The following coding will include your figures:

```

\begin{figure}
  \centering
  \makebox{\includegraphics{figure.eps}}
  \caption{\label{fig01}A figure for test.}
\end{figure}

```

The effect of the above input can be seen in Fig. 1.

You also can set `width`, `height`, `angle`, `scale`, `clip`, `draft` by putting these options in.

```

\includegraphic[width=h_length, height=v_length, angle=angle,
                scale=factor, clip=true/false, draft=true/false]
{figure.eps}

```

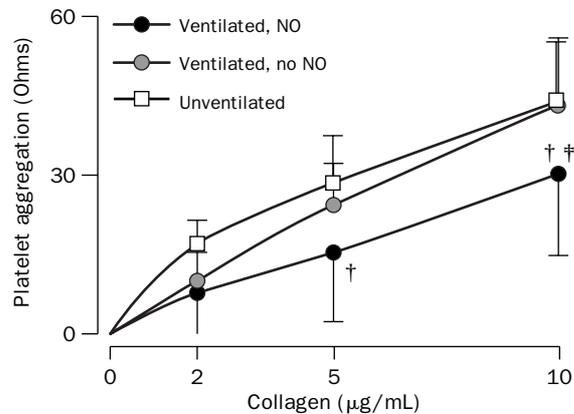


Fig. 1. A figure for test

2.2.5. References

References are Harvard style, that is ‘Author (Year)’ or ‘(Author, Year)’ depending on the context. It is recommended that you use `Natbib.sty` to generate these references automatically. You can obtain the first by using `\citet{...}`, and the second by `\cite{...}`. You can use `LATEX` and the supplied `chicago.bst` to generate references in the correct style for the journal.

Please note that when supplying `TEX` codes, we also need any `.bbl` or `.bib` files that you use as well.

Within the `thebibliography` environment you must use a modified form for each `\bibitem`. Following each `\bibitem` is the sequence

```
[{abbrev-author-info}{year}{full-author-info}]
```

which is then followed by the internal label for the reference, `{ref-label}`.

Finally we have a full example of one of the references shown later:

```
\begin{thebibliography}{}
...
\bibitem[Knuth(1986)]{tex}
  Knuth, D.~E. (1986).
  \newblock {\em The {\TeX}book}.
  \newblock Reading, MA: Addison-Wesley.
...
\end{thebibliography}
```

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