

# A Demonstration of the L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> Class File for the *Oxford University Press Ltd Journal*

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This paper describes the use of the L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> `oupau.cls` class file for setting papers for the *Oxford University Press Ltd Journal*.

## 1 Introduction

Many authors submitting to journals now use L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> to prepare their papers. This paper describes the `oupau.cls` class file that can be used to convert articles produced with other L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> class files into the correct form for publication in the *Oxford University Press Ltd Journal*.

The `oupau.cls` class file preserves much of the standard L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> interface so that any document that was produced using the standard L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> `article` style can easily be converted to work with the `oupau` style. However, the width of text and type size will vary from that of `article.cls`; therefore, *line breaks will change* and it is likely that displayed mathematics and tabular material will need re-setting.

In the following sections we describe how to lay out your code to use `oupau.cls` to reproduce the *article*. However, this paper is not a guide to using L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> and we would refer you to any of the many books available (see, for example, [2, 3, 4]).

## 2 The Three Golden Rules

Before we proceed, we would like to stress *three golden rules* that need to be followed to enable the most efficient use of your code at the typesetting stage:

- (i) keep your own macros to an absolute minimum;
- (ii) as T<sub>E</sub>X is designed to make sensible spacing decisions by itself, do *not* use explicit horizontal or vertical spacing commands, except in a few accepted (mostly mathematical) situations, such as `\`, before a differential `d`, or `\quad` to separate an equation from its qualifier.

## 3 Getting Started

The `oupau` class file should run on any standard L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> installation. If any of the fonts, class files or packages it requires are missing from your installation, they can be found on the *T<sub>E</sub>X Live* CD-ROMs or from CTAN.

The *Journal* is published using Times fonts and this is achieved by using the `times` option as `\documentclass[times]{oupau}`. If for any reason you have a problem using Times you can easily resort to Computer Modern fonts by removing the `times` option.

## 4 The Article Header Information

The heading for any file using `oupau.cls` is shown in Figure 1.

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```

\documentclass[times]{oupau}
%\documentclass[times,doublespace]{oupau}%For paper submission

\begin{document}

% Enter full title and short title for running headers
\title{<Full paper title>}
\shorttitle{<Short paper title for running headers>}

% Author name(s)
\author{<First Author>\affil{1}, <Second Author>\affil{2}, and <Third author>\affil{1}}
% Abbreviated author name for running headers
\abbrevauthor{<F. Author, S. Author, and T. Author>}
% Abbreviated author name for first page header
\headabbrevauthor{<Author, F., S. Author, and T. Author>}

\address{%
\affilnum{1}<Address of first and third authors>
and
\affilnum{2}<Address of second author>}

\correspdetails{<Corresponding author's address/e-mail address>}

\received{<Article history>}
%\revised{<As needed>}
%\accepted{<As needed>}

\communicated{<Editor communicating this article>}

\begin{abstract}
<Text of abstract>
\end{abstract}

\maketitle

\section{Introduction}
...
...

```

**Fig. 1.** Example header text

#### 4.1 Remarks

- (i) In `\shorttitle`, keep the short title to no more than 50 characters.
- (ii) For the abbreviated author lists `\abbrevauthor` (for the running headers) and `\headabbrevauthor` (for the first page header), use ‘*et al.*’ if there are three or more authors.
- (iii) Note the use of `\affil` and `\affilnum` to link names and addresses. The address and/or email address of the author for correspondence is defined by `\correspdetails`.
- (iv) For submitting a double-spaced manuscript, add `doublespace` as an option to the `documentclass` line.

## 5 The Body of the Article

### 5.1 Heading levels

There are three main levels of heading: section, subsection and subsubsection, also known as A, B and C heads and generated by their corresponding L<sup>A</sup>T<sub>E</sub>X commands, i.e. `\section`, `\subsection` and `\subsubsection`. You may also need paragraph and subparagraph headings, but consider using a list environment for separating smaller amounts of material. Capitalize all main words (nouns, names, etc.) in the section headings, and only the first word (and any proper nouns of course) in subsection and all lower headings.

## 5.2 Lists

Lists may be an appropriate alternative to using headings below the level of subsection. If the items in the list are complete or near complete sentences, they should each begin with capital letters and end with a full stop. If they are short phrases they should start with a lower case letter and end with a semicolon. Single items need no punctuation or capitals. The final item in any list should end with a full stop. If punctuation is used to introduce the list, use a colon.

There are two main ways of presenting a list: numbered and unnumbered.

### 5.2.1 Numbered lists

Use a numbered list if the order of the items is important, with either roman numerals or lower case letters, both in parentheses. This style helps distinguish such items from heading levels. Numbered lists can be created using the optional argument in square brackets for `\item`:

```
\begin{itemize}
\item[(i)]
...
\item[(ii)]
...
\item[(iii)]
...
\item[(iv)]
...
\item[(v)]
...
\end{itemize}
```

If the order of the list is unimportant, use a bulleted list, which is similar to the above example, except here there is no need for the optional argument in square brackets:

```
\begin{itemize}
\item
...
\item
...
\item
...
\item
...
\end{itemize}
```

Where necessary, lists may be nested, i.e. use an itemize environment within another itemize environment, as follows:

- (1) ...
  - (a) ...
  - (b) ...
- (2) ...

## 5.3 Theorem-like environments

These are set as follows:

**Theorem 5.1.** If  $B$  equals the Lebesgue measure, then for any measurable function,  $\psi : R_+ \rightarrow R$ ,  $E_\psi(Q(0)) = (1 - a)\psi(0)$ , with the understanding that the fraction in the right-hand side equals  $\psi(Q(0))$  on the event  $\{Q(0) = Q.(0)\}$ .  $\square$

This formatting is achieved using

```

\begin{theorem}
\label{thm1}
...
\end{theorem}

```

Note the use of the  $\LaTeX$  `\label` command. References to this theorem will then take the form, `Theorem~\ref{thm1}`, and will be automatically renumbered if the order changes.

For definitions, examples, etc., again use the corresponding  $\LaTeX$  environment (i.e. `\begin{definition}... \end{definition}`, etc.). Proofs are set in a similar way:

```

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

```

For example:

**Proof.** Use  $K_\lambda > S_\lambda$  to translate combinators into  $\lambda$  terms. For the converse, translate  $\lambda x \dots$  by  $[x < y] \dots$  and use induction and the lemma. ■

## 5.4 Mathematics

`oupau.cls` makes the full functionality of  $\mathcal{A}\mathcal{M}\mathcal{S}\text{-}\mathcal{T}\mathcal{E}\mathcal{X}$  available. We encourage the use of the `align`, `gather` and `multline` environments for displayed mathematics.

## 5.5 Figures and tables

`oupau.cls` uses the `graphicx` package for handling figures.

Figures are called in as follows:

```

\begin{figure}
\centering
\includegraphics{<figure name>}
\caption{<Figure caption>}
\label{<Figure label>}
\end{figure}

```

For further details on how to size figures, etc., with the `graphicx` package see, for example, [2, 4]. If figures are available in an acceptable format (for example, `.eps`, `.ps`) then they will be used but a printed version should always be provided.

The standard coding for a table is shown in Figure 2.

```

\begin{table}
\caption{<Table caption>}
\label{<Table label>}
\centering
\begin{tabsize}
\begin{tabular}{<table alignment>}
\toprule
<column headings>\
\midrule
<table entries
(separated by & as usual)>\
<table entries>\
.
.
.\
\bottomrule
\end{tabular}
\end{tabsize}
\end{table}

```

**Fig. 2.** Example table layout

## 5.6 Quotes and block quotes

- Use double quotes. Do not use single quotes, except for “quotes ‘within’ quotes”.
- Use the following style for block quotes. Do not use quote marks.

Use for quotes that are more than about four lines in length. Indent from both margins. For direct quotes reproduce the exact spelling and punctuation of the original. Any interpolations should be enclosed in square brackets. Do not forget to acknowledge the source of your quote and seek permission if necessary. (See Permissions.)

This is produced by

```
\begin{quote}
...
\end{quote}
```

The quote is set in the same font size as the rest of the text and one line of space is left above and below.

## 5.7 Cross-referencing

The use of the L<sup>A</sup>T<sub>E</sub>X cross-reference system for figures, tables, equations, etc., is encouraged (using `\ref{<name>}` and `\label{<name>}`).

## 5.8 Acknowledgements

An acknowledgements section is started with `\ack` or `\acks` for *Acknowledgement* or *Acknowledgements*, respectively. It must be placed just before the references (or before the appendix when applicable).

## 5.9 Bibliography

The package `natbib` is loaded by `oupau.cls` and can be used to achieve either of the following reference citations. Further details can be found in the notes accompanying the `natbib` package.

### 5.9.1 Numbered references

The commands for producing the reference list are:

```
\begin{thebibliography}{00}
\bibitem{<bibid1>} <Reference details>
.
.
.
\bibitem{<bibid20>} <Reference details>
\end{thebibliography}
```

and the first reference above can be referred to in the text using `\cite{<bibid1>}`.

This is a citation of reference [1] in the text and the following commands form part of the output that occurs at the end of this document:

```
\begin{thebibliography}{0}
\bibitem{Abe:2008}
Abe, T.
‘‘Degeneration of the strange duality map for symplectic bundles.’’
\textit{Journal of Mathematics} 56, no. 5 (2008): 5--10.
\end{thebibliography}
```

### 5.9.2 Name/date references

The commands for producing the reference list are:

```
\begin{thebibliography}{0}
\bibitem[\protect\citeauthoryear{<complete author list>}
{<first author et al.>}{<year>}]{<bibid1>}
<Reference details>
.
.
.
\bibitem[\protect\citeauthoryear{<complete author list>}
{<first author et al.>}{<year>}]{<bibid20>}
<Reference details>
\end{thebibliography}
```

and these reference can be referred to in the text using `\cite{<bibid1>}`, `\citet{<bibid20>}`, etc.

### 5.10 Double spacing

If you need to double space your document for submission please use the `doublespace` option as shown in the sample layout in Figure 1.

## References

- [1] Abe, T. “Degeneration of the strange duality map for symplectic bundles.” *Journal of Mathematics* 56, no. 5 (2008): 5–10.
- [2] Kopka, H., and P. W. Daly. *A Guide to L<sup>A</sup>T<sub>E</sub>X*, 4th ed. New York: Addison-Wesley, 2003.
- [3] Lamport, L. *L<sup>A</sup>T<sub>E</sub>X : A Document Preparation System*, 2nd ed. New York: Addison-Wesley, 1994.
- [4] Mittelbach, F., and M. Goossens. *The L<sup>A</sup>T<sub>E</sub>X Companion*, 2nd ed. New York: Addison-Wesley, 2004.