Int. J. Numer. Meth. Fluids 2010: **00**:1-5

Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/fld

A demonstration of the LaTeX 2_{ε} class file for the *International Journal for Numerical Methods in Fluids*[†]

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SUMMARY

This paper describes the use of the LATEX 2ε fldauth.cls class file for setting papers for the *International Journal for Numerical Methods in Fluids*. Copyright © 2010 John Wiley & Sons, Ltd.

Received ...

KEY WORDS: class file; LATEX 2ε ; Int. J. Numer. Meth. Fluids

1. INTRODUCTION

Many authors submitting to research journals use LaTeX 2_{ε} to prepare their papers. This paper describes the fldauth.cls class file which can be used to convert articles produced with other LaTeX 2_{ε} class files into the correct form for publication in the *International Journal for Numerical Methods in Fluids*.

The fldauth.cls class file preserves much of the standard LaTeX 2_{ε} interface so that any document which was produced using the standard LaTeX 2_{ε} article style can easily be converted to work with the fldauth style. However, the width of text and typesize 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 fldauth.cls to reproduce the typographical look of the *International Journal for Numerical Methods in Fluids*. However, this paper is not a guide to using $\LaTeX 2_{\varepsilon}$ and we would refer you to any of the many books available (see, for example, [1, 2, 3]).

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 TEX 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;
- (iii) follow the International Journal for Numerical Methods in Fluids reference style.

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[†]Please ensure that you use the most up to date class file, available from the FLD Home Page at http://www3.interscience.wiley.com/journal/2861/home

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```
\documentclass[times] {fldauth}
%\documentclass[times,doublespace]{fldauth}%For paper submission
\begin{document}
\runningheads{<Initials and Surnames>}{<Short title>}
\title{<Initial cap, lower case>}
\author{<An Author\affil{1},
Someone Else\affil{2}\corrauth\ and Perhaps Another\affil{1}>}
\address{<\affilnum{1}First author's address
(in this example it is the same as the third author)\break
\affilnum{2}Second author's address>}
\corraddr{<Corresponding author's address (the second author in
this example) > . E-mail: <corresponding author's email address>}
%\cqs{<Contract/grant sponsor name (no number)>}
%\cqsn{<Contract/qrant sponsor name>}{<number>}
\begin{abstract}
<Text>
\end{abstract}
\keywords{<List keywords>}
\maketitle
\section{Introduction}
```

Figure 1. Example header text.

3. GETTING STARTED

The fldauth class file should run on any standard LATEX 2_{ε} installation. If any of the fonts, style files or packages it requires are missing from your installation, they can be found on the TeX Collection DVDs or from CTAN.

International Journal for Numerical Methods in Fluids is published using Times fonts and this is achieved by using the times option as

```
\documentclass[times] {fldauth}.
```

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 fldauth.cls is shown in Figure 1.

```
\begin{table}
\caption{<Table caption>}
\centering
\tabsize
\begin{tabular}{}
\toprule
<column headings>\\
\midrule
\\
\\
.
.
\\bottomrule
\end{tabular}
\end{table}
```

Figure 2. Example table layout.

4.1. Remarks

- (i) In \runningheads use 'et al.' if there are three or more authors.
- (ii) Note the use of \affil and \affilnum to link names and addresses. The author for correspondence is marked by \corrauth and \corraddr is used to give that author's address, which will be printed as a footnote, prefaced by 'Correspondence to:'.
- (iii) For submitting a double-spaced manuscript, add doublespace as an option to the documentclass line.
- (iv) Use \cgs for giving details of financial sponsors; alternatively use \cgsn if the grant number is also to be included. These details will be printed as a footnote, with 'Contract/grant sponsor:' and 'contract/grant number:' inserted in the appropriate places.
- (v) The abstract should be capable of standing by itself, in the absence of the body of the article and of the bibliography. Therefore, it must not contain any reference citations.
- (vi) Keywords are separated by semicolons.

5. THE BODY OF THE ARTICLE

5.1. Mathematics

fldauth.cls makes the full functionality of $\mathcal{A}_{\mathcal{M}}\mathcal{S}$ TeX available. We encourage the use of the align, gather and multline environments for displayed mathematics. amsthm is used for setting theorem-like and proof environments. The usual \newtheorem command needs to be used to set up the environments for your particular document.

5.2. Figures and Tables

fldauth.cls includes the graphicx package for handling figures.

Figures are called in as follows:

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

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For further details on how to size figures, etc., with the graphicx package see, for example, [1] or [3]. If figures are available in an acceptable format (for example, .eps, .ps) they will be used but a printed version should always be provided.

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

5.3. Cross-referencing

The use of the LATEX cross-reference system for figures, tables, equations, etc., is encouraged (using \ref{<name>} and \label{<name>}).

5.4. Acknowledgements

An Acknowledgements section is started with \ack or \acks for Acknowledgement or Acknowledgements, respectively. It must be placed just before the References.

5.5. Bibliography

The normal commands for producing the reference list are:

where $\left\{ x-ref \mid abel \right\}$ corresponds to $\left\{ x-ref \mid abel \right\}$ in the body of the article and $\left\{ 99 \right\}$ is the widest such number expected and determines the width of the number column in the reference list.

Please note that the file wileyj.bst is available from the same download page for those authors using $BiBT_{P}X$.

5.6. 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.

6. SUPPORT FOR FLDAUTH.CLS

We offer on-line support to participating authors. Please contact us via e-mail at fldauth-cls@wiley.co.uk.

We would welcome any feedback, positive or otherwise, on your experiences of using fldauth.cls.

7. COPYRIGHT STATEMENT

Please be aware that the use of this LATEX 2ε class file is governed by the following conditions.

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ACKNOWLEDGEMENT

This class file was developed by Sunrise Setting Ltd, Torquay, Devon, UK. Website: www.sunrise-setting.co.uk

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