

How to Prepare the Proceedings Using LaTeX: Sample File

A.B. Firstauthor^{*}, C. Secondauthor[†], D.E. Thirdauthor[‡],
E.F. Fourthauthor[‡], and G.H. Fifthauthor[‡]

^{*}*Center for Industrial and Medical Ultrasound, Applied Physics Laboratory, University of Washington,
1013 NE 40th Street, Seattle, Washington 98105; E-mail: firstaut@apl.washington.edu;*

[†]*INSERM, Unité 556, 151 Cours Albert Thomas, 69424 Lyon Cedex 03, France; E-Mail:
coauthor4@france.ml;*

[‡]*Department of Aerospace and Mechanical Engineering, Boston University, 110 Cummington Street,
Boston, Massachusetts, 02215; E-mail: coauthor5@usa.com, coauthor6@usa.edu.*

Abstract. There are two common possibilities to prepare a proper PDF file: one can use Word and print the file using Acrobat or one can create a LaTeX file and use dvi → pdf converter (we strongly recommend dvipdfm). The purpose of the current guide is to introduce the isna.cls style and to give the recommendations of its usage. The best way to use this document is to open the source and try to do “just the same”.

INTRODUCTION

It is supposed that the most of participants prepare the Proceedings as follows: they prepare the paper using Microsoft Word editor and after that use something like Acrobat PDF Printer (it is just a button in Word, which appears when you one installes Acrobat on a PC machine). Note that Acrobat and Acrobat Reader are different programs, and PDF printer *does not appear* if only the Acrobat Reader is installed.

Here we provide the style file for those who want to use LaTeX for preparing their papers. As you know, it is not easy to make a publication in LaTeX looking similar to that prepared in Word. We did our best to make LaTeX people compatible with Word users, but we suppose that our file may work not very good in some cases. Please be patient and do not hesitate contacting us.

Please read first the “Instructions for the Authors” file to know everything about the deadlines, the length of the paper and so on.

GENERAL PROCEDURE

What Version of TEX Should Be Used?

We tested our style file on MikTeX 2 up 1, LaTeX2 ϵ . The choice is connected with the presence of Times font in it; this font looks almost like Times New Roman in Word. If you have the standard MikTeX installation, it is most probable that you will carry the whole procedure and get the proper PDF at the end. If you don't have this version, then you can prepare a good LaTeX file with Computer Modern fonts, standard for TeX, test everything and send us the LaTeX file. We shall process it with MikTeX and obtain the PDF by ourselves.

What Packages Should Be Used?

First of all, you should use the `isna.cls` file. Second, you can need the graphic packages: we recommend to use the EPS files and `epsfig` package for them. Third, if you decide to make the text wrapping the figures rather than allowing pictures to break the text, please use the file `wrapfig.sty` and study the instructions in this file. Fourth, you can need some special symbols, say, provided by the packages `amsmath` or `amssymb`.

Please, don't use any other style files if it is not "very necessary".

What to Do If You Have Everything?

If you have everything, please prepare the source file in LaTeX2 ϵ according to the rules listed below. Then say

```
latex <your source>.tex
```

where `<your source>` is the name of your source file, for example say "latex sample.tex" for this particular file. The result is the file with name `<your source>.dvi`. After that say

```
dvipdfm -p a4 <your source>
```

The result will be the file with the name `<your source>.pdf`. The option "`-p a4`" is needed to use paper of A4 format.

By the way, it is a good idea to use the surname of the first author as `<your source>`. Imagine the organizers having about 100 files named as `isnaproc.tex` !

If you cannot use `dvipdfm` utility, please don't convert the file into PS and then into PDF using Acrobat Distiller. This sequence leads to PDF files of a very poor quality.

PREPARING THE SOURCE FILE

Beginning

Documentclass and Other Settings

If you have MikTeX, place the string

```
\documentclass[mathtime,epsfig]{isna}
```

in the beginning of your source file. The option `epsfig` should be placed, of course, if you want to use EPS figures.

If you use some other LaTeX, place in the beginning the string

```
\documentclass[cmfonts,epsfig]{isna}
```

instead of that with “`mathtime`” option. The option `cmfonts` will say LaTeX to use the standard Computer Modern fonts, using which you can prepare only the test version of the file, not the final PDF file.

After that you say

```
\usepackage{...}
```

where instead of `...` you should place the names of the packages that you want to use, e.g. `wrapfig`, `amsmath`, `amsfonts`, `amssymb` etc.

Don’t put any commands connected with margins, spaces, etc. Everything will be done (as we hope) automatically.

Then place all your macrocommands. We recommend to use as simple macrocommands as possible. Any non-standard thing may cause a trouble.

Finally, say

```
\begin{document}
```

Don’t forget also to say

```
\end{document}
```

in the end of the file.

Frontmatter

Title

After the phrase

```
\begin{document}
```

you should place the command

```
\title{Title of Your Talk}
```

with the title of the talk. **Note that the first letters of the words should be capital!**

Authors

After that say

```
\author{list of authors}
```

with the list of all authors. The signs *, †, ‡, §, # etc are placed *manually*. For example, the authors of the sample file were typed as follows:

```
\author{A.B.~Firstauthor$^*$, C.~Secondauthor$^\dag$,  
D.E.~Thirdauthor$^\dag$, E.F.~Fourthauthor$^\ddag$,  
and G.H.~Fifthauthor$^\ddag$}
```

Then place the list of addresses of all authors as follows:

```
\address{list of authors' addresses}
```

The example:

```
\address{$^*$Center for Industrial and Medical Ultrasound,  
Applied Physics Laboratory, University of Washington,  
1013 NE 40$^{th}$ Street,  
Seattle, Washington 98105;  
E-mail: firstaut@apl.washington.edu;  
\\  
$^\dag$INSERM, Unit\`e 556, 151 Cours Albert Thomas, 69424  
Lyon Cedex 03, France;  
E-Mail: coauthor4@france.ml;  
\\  
$^\ddag$Department of Aerospace and Mechanical Engineering,  
Boston University, 110 Cummington Street, Boston,  
Massachusetts, 02215;  
E-mail: coauthor5@usa.com, coauthor6@usa.edu. }
```

Note that you should manually place the symbols *, †, ‡, §, # Also, you should manually separate the authors. This will not be done automatically.

Then say

```
\maketitle
```

To make the abstract, as usual, say

```
\begin{abstract}  
Text of abstract  
\end{abstract}
```

Don't try to place any vertical intervals.

Sections, Subsections etc

The sections, subsections and subsubsections are produced by usual commands:

```
\section{SECTION TITLE}
\subsection{Subsection Title}
\subsubsection{Subsubsection Title}
```

Note that the caps/lowercase letters should be placed in the titles manually by the author. It should look as follows:

%%

ALL CAPS

Caps / Lowercase

Caps / Lowercase

%%

Equations

The equations can be typeset as usual. As an example, we place here our favourite Khokhlov-Zabolotskaya equation:

$$\frac{\partial}{\partial \tau} \left[\frac{\partial u}{\partial z} + P(u) \frac{\partial u}{\partial \tau} \right] = \frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2}. \quad (1)$$

Please, don't change the standard way of numbering of the equations. You can use the in-line formulae: $c = \sqrt{K/\rho}$.

Figures

We recommend you to use the EPS format for the figures, but you can also use any other format insertable in TeX. You can insert a figure either breaking the main text or being wrapped by it. In the latter case you should use the `wrapfig` style. Usual figures can be inserted like this:

```
\begin{figure}
\epsfig{file=fig01.eps}
\caption{Beautiful little circles.
Do you think this is cavitation?}
\end{figure}
```

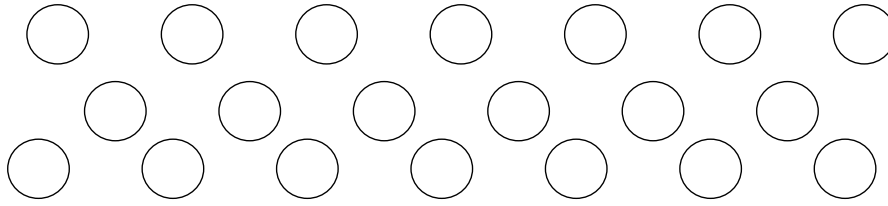


FIGURE 1. Beautiful little circles. Do you think this is cavitation?

And below there is an example how to insert a wrapped figure:

```
\begin{wrapfigure}{R}{6cm}
\epsfig{file=fig02.eps}
\caption{A sample of wrapped figure}
\end{wrapfigure}
```

Let us look how it will work here. Looks beautiful for TeX, don't you think so?

Note that it is necessary to place the figure correctly in the text. Even the standard TeX procedures sometimes produce an ugly output, and the `wrapfig.sty` is even worse. Please read the detailed instructions placed in the beginning of the file `wrapfig.sty`.

The captions for the figures should be made by the standard `caption` command.

Please also make all the lines in your figures wide enough to be visible when printed by a printing house. Usually, very thin lines become invisible or dashed. The minimal width of 0.5pt should be Ok.

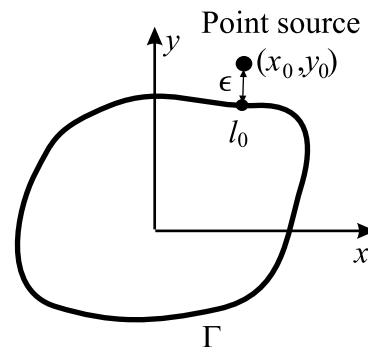


FIGURE 2. A sample of wrapped figure

How to Make the Bibliography

Just type

```
\begin{thebibliography}{9}
\bibitem{Chapelon}
...
\bibitem{Cleveland}
...
\end{thebibliography}
```

if you have less than 10 references or

```
\begin{thebibliography}{99}
```

```
...
```

```
\end{thebibliography}
```

if you have 10 references or more. In the text say

```
\cite{Cleveland}
```

and it will make the reference [2]. Please prepare the references according to the templates below.

IF SOMETHING FAILS

We expect that nothing will cause problems with the standard LaTeX commands, but if something happens please write to Dr. Andrey Shanin by e-mail:

shanin@ort.ru

who has prepared the TeX instructions and is responsible for everything connected with TeX.

We expect that most of TeX participants will be able to prepare the PDF file using our style file. If you have some problems, you should prepare the LaTeX source using `isna.cls` style with `cmfonts` options or just in plane LaTeX and submit the source and the figures. The last way is not convenient, because the final version of the text will be produced by us and may not satisfy the author, so we encourage you to use this possibility only if you have some earlier or incompatible TeX version.

ACKNOWLEDGEMENTS

We will be grateful to everybody, who will send the proceedins prepared and cheked carefully, preferrably in PDF format.

REFERENCES

1. Chapelon, J.Y., and Catignol, D., “High energy ultrasound therapy: Part I — High intensity focused ultrasound (HIFU),” in *Advances in Nonlinear Acoustics*, Proceedings of 13th International Symposium on Nonlinear Acoustics, ed. by H. Hobaek (World Scientific, Singapore, 1993), 30–35.
2. Cleveland, R.O., *et al.*, “A dual passive cavitation detector for localized detection of lithotripsy-cavitation *in vitro*,” *J. Acoust. Soc. Am.* **107**, 1745–1758 (2000).
3. Olver, P., *Application of Lie Groups to Differential Equations* (Springer, New York, 1986), ch. 4, 133–145.