

THIS IS THE FULL TITLE OF YOUR AMS ARTICLE

JOHN SMITH, LUTZ MERTEN, AND ISTVÁN KOVÁCS

Dedicated to the memory of S. Bach.

ABSTRACT. This paper is a template for those authors who wish to prepare their manuscript for the Journal of Computational and Applied Mechanics by using the `amsart` document class with `bibtex`. You can reedit the text of this paper and the corresponding `bib` file in order to obtain your manuscript.

1. INTRODUCTION

The present paper is written to you with the intention to provide help with preparing your manuscript for the Journal of Computational and Applied Mechanics.

We assume that you are going to use \LaTeX . We remind you of the fact that a \LaTeX file is a simple `ascii` file which can be edited with any editor, for instance with Notepad. However if you have no familiarity with \LaTeX you are advised to use Scientific Word or Workplace which provide you with a user friendly environment very similar to the environment provided by MS Word. If this is your choice there is no need to learn \LaTeX commands. What is more you can work more or less in the same way as under MS Word.

If you have familiarity with \LaTeX you shall hardly find anything new for you in this article. In spite of that after reading it you will be able to satisfy all the rules prescribed for an article submitted to our journal. For this reason we kindly ask you to read it.

If you work under an MS Windows operating system you can use $\text{MiK}\TeX$, which is an excellent and free \TeX and \LaTeX system, with the editors WinEdt (shareware) or \TeX nicCenter (free).

We remark that links to the homepages of Scientific Word or Workplace, WinEdt and \TeX nicCenter can be found in our homepage – click on the button Rules for Authors.

The text is organized into seven sections. If necessary a section is divided into parts, from which one turns its attention to the use of Scientific Word or Workplace

Date: March 26, 2004.

2000 Mathematics Subject Classification. Primary 05C38, 15A15; Secondary 05A15, 15A18.

Key words and phrases. Manuscript preparation, document class, $\text{AMS}\LaTeX$, references.

Thanks for Author One, i.e., for John Smith.

Thanks for Author Two, i.e., for Lutz Merten.

This paper is in final form and no version of it will be submitted for publication elsewhere.

while another considers other possibilities with an emphasis laid on the use of MiKTeX with WinEdt or T_EXnicCenter.

Section 2 details some general rules. The question of the paper, text and font sizes is considered in Section 3. Section 4 is devoted to the problem of how to make your title page. Section 5 deals with the problem of equation numbering. The issue how to place a figure into your document is investigated briefly in Section 6. The last section deals with references.

2. GENERAL RULES

The manuscripts submitted to the journal should be written in standard grammatical English. Though the length of a paper is not prescribed, authors are encouraged to write concisely. However, short communications or discussions on papers published in the journal must not be longer than 2 pages.

Each manuscript should be provided with an English Abstract of about 50–70 words, reporting concisely on the objective and results of the paper. The English Abstract is followed by the Mathematical Subject Classification – in case the author (or authors) give the classification codes – then the keywords (no more than five).

References should be grouped at the end of the paper in numerical order of appearance. Author’s name(s) and initials, paper titles, journal name, volume, issue, year and page numbers should be given for all journals referenced.

We encourage our authors to submit their papers in electronic form. The text is to be 130 mm wide and 190 mm long and the main text should be typeset in 10pt CMR (LaTeX) or Times New Roman (MS Word) fonts.

Observe that the first paragraph in a Section is never indented.

We should remark that the format rules detailed in this section are all kept in order if you reedit one of our sample files, for instance this one, when you typeset your paper.

By the way, when we say editing this file we mean the file `SampleAMSArticleBib.tex` from which we generated the pdf file you are reading now.

3. PAPER, TEXT AND FONT SIZES

These are set partly by the `documentclass` command and in the preamble – see below:

- The `documentclass` command, which is the very first command in a L^AT_EX file, has the form:

```
\documentclass[twoside,10pt,reqno,a4paper]{amsart}
```

Under Scientific Word or Workplace the parameters of the `documentclass` command – these are listed in square brackets, the separator is a coma – can be changed by clicking on Typeset, Options and packages, where (in the window that opens) one can modify the class options.

- The preamble is the part of your L^AT_EX file between the `\documentclass` and `\begin{document}` commands. The text sizes are set to the values prescribed by the commands

```
\setlength{\textwidth}{130 true mm} and
\setlength{\textheight}{190 true mm}
```

Under Scientific Word or Workplace commands in the preamble can be changed by clicking on Typeset, Preamble, where (in the window that opens) one can modify any command of the Preamble.

When editing this file please do not change the paper, text and font sizes.

4. THE TITLE PAGE OF YOUR ARTICLE

4.1. Editing your title page under Scientific Word or Workplace. If you wish to edit your title page (your front matter) click on Typeset then on Front Matter. In the window that opens you can modify the material of your title page. This includes the commands: Title, Short Title then the commands Author, Address, E-mail, URL Address, Current address and Thanks (as many times as there are authors), the mathematical classification codes¹, the keywords and finally the Abstract. A new command field can be added by selecting an appropriate tag from the Item Tag pop-up-list at the left bottom of the screen.

4.2. Editing your title page under WinEdt or T_EXnicCenter. Please edit the text of your paper (this file if you choose to reedit it) as you wish between the `\begin{document}` and `\maketitle` commands. Keep in mind that you have to follow the L^AT_EX rules.

5. EQUATION NUMBERING

Equation numbers appear on the right side of your equations since the command `\documentclass` has `reqno` as a parameter. The equation numbers may have two forms.

- A single series of consecutive numbers. This is achieved if you remove the command `\numberwithin{equation}{section}` from the preamble.
- Equations are numbered within sections if the command `\numberwithin{equation}{section}` is present in the preamble.

In this article we use numbering within sections:

$$a^2 + b^2 = c^2 \tag{5.1}$$

(We have already discussed how to change the commands in the preamble – see Section 3 for details.)

6. HOW TO PLACE A FIGURE INTO YOUR ARTICLE

6.1. The figure formats we prefer. In case you want to place a figure into your L^AT_EX document your preamble should contain the commands

```
\usepackage{graphicx}
\DeclareGraphicsRule{.wmf}{bmp}{}{}
%The second line is for the sake of MiKTeX
```

¹Visit the section Rules for authors then the subsection Manuals in our home page

If you choose to reedit this file your preamble contains these commands.

Please prefer the following two formats: wmf (Windows Metafile) or eps (Encapsulated Postscript).

As regards the placement of your figures we distinguish two groups. The first one is formed by the floating figures since these can float within the text. Displayed and inline figures fall into the second group.

We advise to make all your figures belong either to the first group or to the second one. If possible prefer group one to group two.

Please keep your \LaTeX file and your figure files in the same directory. The first ex-

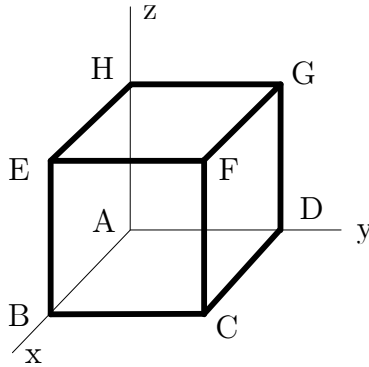


FIGURE 1. A figure in wmf format

ample, i.e., Figure 1 is a wmf figure. If you label the figure – in this example the name is `FirstFigure` you can refer to it by name making use of the `\ref{FirstFigure}` command. In this example the name of the figure file is `FigureOne.wmf`. The second

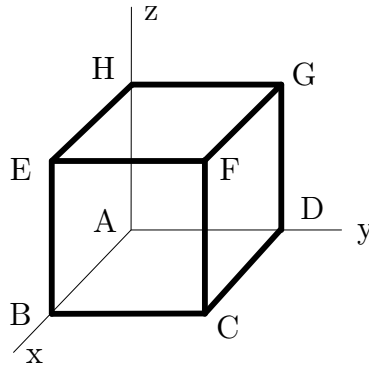


FIGURE 2. A figure in eps format

example, i.e., Figure 2 shows again the previous figure however now in eps format. The label we used to make a reference is `SecondFigure`. In this example `FigureOne.eps` is the file that contains the figure.

6.2. How to place a figure into your article under SWP. Please put the cursor to the place in the text where the figure is to appear. Then click on File, Import picture and after selecting the file type (wmf or eps) and the file itself click on the word Open. You will have the figure in your article. If now you click on the right side of the figure you open the Graphic properties window in which you can label your figure and can add a caption to it.

If your figure is in an MS Word document click on the figure and copy it to the Clipboard. As soon as the figure is in the clipboard you can place it into your \LaTeX document (this file if you choose to reedit it) by putting the cursor to the place in the text where the figure is to appear and then clicking on Edit, Paste special, Picture.

6.3. How to place a figure into your article under Miktex. We assume that you edit your \LaTeX file by WinEdt or \TeX nicCenter. Please go to the possible place of your figure then copy and reedit the following commands (which were used to place the above two figures in the present document)

1. \LaTeX commands for the first figure:

```
\begin{figure}
[tbh]
\begin{center}
\includegraphics[natheight=2.034900in, natwidth=2.031400in,
height=5.239cm, width=5.2302cm]%
{FigureOne.wmf}%
\caption{A figure in wmf format}%
\label{FirstFigure}%
\end{center}
\end{figure}
```

2. \LaTeX commands for the second figure:

```
\begin{figure}
[h]
\begin{center}
\includegraphics[height=2.0652in, width=2.0652in]%
{FigureOne.eps}%
\caption{A figure in eps format}%
\label{SecondFigure}%
\end{center}
\end{figure}
```

7. SAMPLE REFERENCES BY BIBTEX

7.1. Your bib and bst files. This section explains how to make references by making use of the bib file `JCAMSample` and the bst file `JCAM`. The references made below include the most important types.

7.2. What to do under SWP. Please copy your bib file (if you reedit this file and our bib file `JCAMSample.bib` then the latter) into an appropriate place in your SW or SWP directory tree, i.e., into the directory `swp50\TCITeX\BibTeX\bib` and the `JCAM.bst` file into the directory `swp50\TCITeX\BibTeX\bst`. Here we have assumed that SWP50 is the main directory in your SWP directory tree.

If you reedit this file the next step can be omitted.

If you edit your own file go to the end of the file. Then click on Insert, Typeset Object, Bibliography and select your bib file and the `JCAM.bst` file.

To make a reference move your cursor to the appropriate place, then click on Insert, Typeset Object, Citation and select your bib file in the window that opens. Making use of the View keys button you can make an appropriate choice.

7.3. What to do if you use Miktex. We assume that you use WinEdt or $\text{T}_{\text{E}}\text{X}$ nicCenter in which the file you are working on is open. The file `JCAM.bst`, your bib file (if you reedit this file and our bib file `JCAMSample.bib` then the latter) and the article you are working on must be in the same directory.

If you reedit this file the next step can be omitted.

If you edit your own file go to the end of the file. Then insert the commands

```
\bibliographystyle{JCAM}
\bibliography{TheNameOfYourBibFile}
```

in such a way that they precede the `\end{document}` command.

Move your cursor to the place of your citation. Then typeset the command `\cite{key}` in which the key should be taken from your bib file.

Below we give some examples:

1. Here we have made a reference to a book (book): [1]
2. Here we have made references to two articles (article): [2, 3]
3. This is a reference made to a part of the book (incollection): [4]
4. This is a reference made to a part of the book (inbook): [5].
5. Here there is a reference to an article published in conference proceedings (inproceedings): [6]
6. References to conference lectures (conference): [7], [8]
7. Reference to a Manual (manual): [9]
8. This is a reference made to a Ph. D. dissertation: [10]

REFERENCES

1. CHEN, G. and YHOU, J.: *Boundary Element Methods*. Academic Press Limited, 24-28 Oval Road, London, NW1 7DX, 1992, ISBN 0-1-170840-X.
2. CARLSON, D. E.: On Günthers stress functions for couple stresses. *Quart. Appl. Math.*, **25**(2), (1967), 139–146.
3. DORN, W. S. and SCHIELD, A.: A converse of virtual work theorem for deformable solids. *Quart. Appl. Math.*, **14**(2), (1956), 209–213.
4. GURTIN, M. E.: The Linear Theory of Elasticity. In S. Flügge (ed.), *Handbuch der Physik, Festkörpermechanik*, vol. 2, pp. 17, 57–60, 163–164, Springer Verlag, Berlin, Heidelberg, NewYork, 1st edn., 1972.
5. GURTIN, M. E.: *Handbuch der Physik, Festkörpermechanik*, vol. 2, chap. The Linear Theory of Elasticity, pp. 17, 57–60, 163–164. Springer Verlag, Berlin, Heidelberg, NewYork, 1st edn., 1972.

6. WATSON, J. O.: Hermitian cubic and singular elements for plane strain. In P. K. Banarjee and J. O. Watson (eds.), *Developments in Boundary Elements*, vol. 4, Elsevier, New York, 1986, pp. 1–28.
7. ZHOU, J.: Computation of eigenfunctions of two dimensional vibrating structures by boundary element method. In *Proceedings of 28th IEEE-CDC*, Tampa, Florida, 1989, pp. 2045–2049.
8. FARKAS, J. and JÁRMAI, K.: Fatigue constraints in the optimum design of welded structures. In H. P. Lieurade and P. Rabbe (eds.), *Proceedings of the International Conference on Fatigue of Welded Components and Structures*, Les Editions de Physique, Senlis, France, Les Ulis, 1996, pp. 49–56.
9. Microsoft Corporation: *Microsoft MS-DOS, Operating System Plus Enhanced Tools*. 1994. (in Hungarian).
10. PAULINO, G. H.: *Novel Formulations of the Boundary Element Method for Fracture Mechanics and Error Estimation*. Ph. D. Dissertation, Cornell University, Ithaca, NY, USA, 1995.

(John Smith and Lutz Merten) TEXAS A & M UNIVERSITY, COLLEGE STATION, TEXAS 7843 USA
E-mail address, John Smith: aone@aoneinst.edu
URL: <http://www.authorone.oneuniv.edu>

Current address, Lutz Merten: Institute für Mechanik, Otto von Guericke Universität, Postfach
4120, D-39016 Magdeburg, Germany
E-mail address, Lutz Merten: atwo@atwoinst.edu
URL: <http://www.authortwo.twouniv.edu>

(István Kovács) UNIVERSITY OF MISKOLC, H-3515 MISKOLC-EGYETEMVÁROS, HUNGARY
E-mail address, István Kovács: athree@atwoinst.edu
URL: <http://www.authorthree.threeuniv.edu>