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AN ARTICLE CREATED USING LATEX2ε IN ASME FORMAT

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ABSTRACT

This article illustrates preparation of ASME paper using LATEX2ε. An abstract for an ASME paper should be less than 150 words and is normally in italics.

NOMENCLATURE

A You may include nomenclature here.
α There are two arguments for each entry of the nomemclature environment, the symbol and the definition.

The spacing between abstract and the text heading is two line spaces. The primary text heading is boldface in all capitals, flushed left with the left margin. The spacing between the text and the heading is also two line spaces.

INTRODUCTION

This article illustrates preparation of ASME paper using LATEX2ε. The LATEX macro `asme2e.cls`, the BIBTEX style file `asmems4.bst`, and the template `asme2e.tex` that create this article are available on the WWW at the URL address `http://iel.ucdavis.edu/code/`. To ensure compliance with the 2003 ASME MS4 style guidelines [?], you should modify neither the LATEX macro `asme2e.cls` nor the BIBTEX style file `asmems4.bst`. By comparing the output generated by typesetting this file and the LATEX2ε source file, you should find everything you need to help you through the preparation of ASME paper using LATEX2ε. Details on using LATEX can be found in [?]. Instructions for submitting an electronic version of a paper via ftp for publication on CD-ROM or online are given at the URL address `http://www.asme.org/pubs/submittal.html`.

VERY VERY VERY VERY VERY VERY VERY VERY LONG HEADING

If the heading should run into more than one line, the run-over is flush left.

Second-Level Heading

The next level of heading is boldface with upper and lower case letters. The heading is flushed left with the left margin. The spacing to the next heading is two line spaces.

Third-Level Heading. The third-level of heading follows the style of the second-level heading, but it is indented and followed by a period, a space, and the start of corresponding text.

PAPER NUMBER

ASME assigns each accepted paper with a unique number. Replace **DETC98/DAC-1234** in the input file preamble (the location will be obvious) with the paper number supplied to you by ASME for your paper.

*Address all correspondence to this author.

Figure 1. THE FIGURE CAPTION USES CAPITAL LETTERS.

Table 1. THE TABLE CAPTION USES CAPITAL LETTERS, TOO.

Example	Time	Cost
1	12.5	$1,000
2	24	$2,000

USE OF SI UNITS

An ASME paper should use SI units. When preference is given to SI units, the U.S. customary units may be given in parentheses or omitted. When U.S. customary units are given preference, the SI equivalent *shall* be provided in parentheses or in a supplementary table.

MATHEMATICS

Equations should be numbered consecutively beginning with (1) to the end of the paper, including any appendices. The number should be enclosed in parentheses and set flush right in the column on the same line as the equation. An extra line of space should be left above and below a displayed equation or formula. LaTeX can automatically keep track of equation numbers in the paper and format almost any equation imaginable. An example is shown in Eqn. (**??**). The number of a referenced equation in the text should be preceded by Eqn. unless the reference starts a sentence in which case Eqn. should be expanded to Equation.

$$f(t) = \int_{0_+}^{t} F(t)dt + \frac{dg(t)}{dt} \tag{1}$$

FIGURES AND TABLES

All figures should be positioned at the top of the page where possible. All figures should be numbered consecutively and captioned; the caption uses all capital letters, and centered under the figure as shown in Fig. **??**. All text within the figure should be no smaller than 7 pt. There should be a minimum two line spaces between figures and text. The number of a referenced figure or table in the text should be preceded by Fig. or Tab. respectively unless the reference starts a sentence in which case Fig. or Tab. should be expanded to Figure or Table.

All tables should be numbered consecutively and captioned; the caption should use all capital letters, and centered above the table as shown in Table **??**. The body of the table should be no smaller than 7 pt. There should be a minimum two line spaces between tables and text.

FOOTNOTES[1]

Footnotes are referenced with superscript numerals and are numbered consecutively from 1 to the end of the paper[2]. Footnotes should appear at the bottom of the column in which they are referenced.

CITING REFERENCES

The ASME reference format is defined in the authors kit provided by the ASME. The format is:

> *Text Citation*. Within the text, references should be cited in numerical order according to their order of appearance. The numbered reference citation should be enclosed in brackets.

The references must appear in the paper in the order that they were cited. In addition, multiple citations (3 or more in the same brackets) must appear as a “ [1-3]”. A complete definition of the ASME reference format can be found in the ASME manual [?].

The bibliography style required by the ASME is unsorted with entries appearing in the order in which the citations appear. If that were the only specification, the standard BibTeX unsrt bibliography style could be used. Unfortunately, the bibliography style required by the ASME has additional requirements (last name followed by first name, periodical volume in boldface, periodical number inside parentheses, etc.) that are not part of the unsrt style. Therefore, to get ASME bibliography formatting, you must use the `asmems4.bst` bibliography style file with BibTeX. This file is not part of the standard BibTeX distribution so you’ll need to place the file someplace where LaTeX can find it (one possibility is in the same location as the file being typeset).

With LaTeX/BibTeX, LaTeX uses the citation format set by the class file and writes the citation information into the .aux file associated with the LaTeX source. BibTeX reads the .aux file and matches the citations to the entries in the bibliographic data base file specified in the LaTeX source file by the `\bibliography` command. BibTeX then writes the bibliography in accordance with the rules in the bibliography .bst style file to a .bbl file which LaTeX merges with the source text. A good description of the use of BibTeX can be found in [?, **?**] (see how 2 references are handled?). The following is an example of how three or more references [?, ?, ?] show up using the `asmems4.bst` bibliography

[1] Examine the input file, asme2e.tex, to see how a footnote is given in a head.
[2] Avoid footnotes if at all possible.

style file in conjunction with the `asme2e.cls` class file. Here are some more [**?**, **?**, **?**, **?**, **?**, **?**, **?**, **?**, **?**, **?**, **?**] which can be used to describe almost any sort of reference.

ACKNOWLEDGMENT

Thanks go to D. E. Knuth and L. Lamport for developing the wonderful word processing software packages TeX and LaTeX. I also would like to thank Ken Sprott and Kirk van Katwyk for fixing bugs in the ASME style file `asme2e.cls`, and Geoff Shiflett for creating ASME bibliography stype file `asmems4.bst`.

Appendix A: Head of First Appendix

Avoid Appendices if possible.

Appendix B: Head of Second Appendix

Subsection head in appendix

The equation counter is not reset in an appendix and the numbers will follow one continual sequence from the beginning of the article to the very end as shown in the following example.

$$a = b + c. \tag{2}$$