

Preparation of Camera-Ready Papers for NUCONE Proceedings

First A. Author, Second B. Author, Jr., and Third C. Author

Abstract--These instructions give you guidelines for preparing papers for the *NUCONE Proceedings* using Microsoft Word 6.0 or later. Use this document as a template. Define all symbols used in the abstract. Do not cite references in the abstract.

Index Terms--About four, alphabetical order, key words or phrases, separated by commas.

I. INTRODUCTION

THIS document is a template for Microsoft Word versions 6.0 or later..

Page limit is 6 pages for Contributed papers. Do not adjust the font sizes or line spacing specified in this document to squeeze more text into a limited number of pages.

II. PROCEDURE FOR PAPER SUBMISSION

1) Paper Version

When you submit your final version, print it in two-column format, including figures and tables. To insert images in Word, use Insert | Picture | From File. **Also submit, on separate sheets of paper, enlarged versions of the tables and figures that appear in your document.** These are back-up images, in case we cannot read your electronic image files (see below). Also send a sheet of paper with author contact information--including telephone, fax, and e-mail--so that we can contact you if there is any problem with your paper.

2) Electronic Version

You must also send your final manuscript by e-mail or on a disk, which we will use to prepare your paper for publication. Write the names of the authors on the disk labels.

All tables and figures will be processed as images. **However, we cannot extract the tables and figures embedded in your document.** Thus, electronic versions of the tables and figures should be on disk or disks, separate from your document file, in Tagged Image File Format (TIFF).

Use a separate file for each TIFF image. High-contrast line figures and tables should be prepared with 600 dpi resolution and saved with no compression, 1 bit per pixel (monochrome), with file names of the form "1fig600.tif" or "2tab600.tif." To obtain a 3.45 inch figure (one column width) at 600 dpi, the figure requires a horizontal size of 2070 pixels. Typical file sizes will be on the order of 0.5 MB. Photographs, color figures, and grayscale figures should be prepared with 220 dpi resolution and saved with no

compression, 8 bits per pixel (256 color or grayscale), with a file name of the form "3fig220.tif." To obtain a 3.45 inch figure (one column width) at 220 dpi, the figure should have a horizontal size of 759 pixels. Photo images other than line diagrams and graphs should be avoided.

Some useful image converters are Adobe *Photoshop*, Corel *Draw*, and Microsoft *Photo Editor*, an application that is part of Microsoft *Office 97*. Using Word, you may create a table, copy it to the clipboard, and paste it directly into *Photoshop*, for example. Then you may crop the table, resize it to 3.45 inch width and 600 dpi resolution, and save the image in TIFF using no compression and 1 bit (see caption for Table I). Many image converters allow you to resize but do not permit adjustment of resolution.

For more information on TIFF guidelines, please see <http://www.ieee.org/organizations/pubs/authors.html>.

III. MATH

Use either the Microsoft Equation Editor or the *MathType* add-on for all math objects in your paper (Insert | Object | Create New | Microsoft Equation or MathType Equation). "Float over text" should *not* be selected. We recommend defining a keyboard shortcut (e.g., ALT+E) to open the equation editor (Tools | Customize | Commands | Keyboard | Insert InsertEquation).

A math object is any equation or fragment containing mathematical symbols (including Greek characters, superscripts and subscripts) that appears either in-line (in the flow of normal text) or as a display equation (in its own space between lines of text).

In particular, you should avoid using Word fonts or symbols for in-line single variables with superscripts or subscripts. Use italics for emphasis; do not underline. Turn off "smart quotes" (Tools | AutoCorrect | AutoFormat tabs). Turn off automatic hyphenation (Tools | Language | Hyphenation).

IV. UNITS

Use either SI (MKS) or CGS as primary units. (SI units are strongly encouraged.) English units may be used as secondary units (in parentheses). An exception is when English units are used as identifiers in trade, such as "3 $\frac{1}{2}$ in disk drive." Avoid combining SI and CGS units. If you must use mixed units, clearly state the units for each quantity in an

equation.

V. HELPFUL HINTS

A. Figures and Tables

Large figures and tables may span both columns. Place figure captions below the figures; place table titles above the tables. **Do not put captions in "text boxes" linked to the figures. Do not put borders around your figures.**

Use the abbreviation "Fig." even at the beginning of a sentence. Do not abbreviate "Table." Tables are numbered with Roman numerals. Remember to include TIFF files of figures and tables with your final paper submission.

TABLE I
UNITS FOR MAGNETIC PROPERTIES

Symbol	Quantity	Conversion from Gaussian and cgs emu to SI ^a
Φ	magnetic flux	1 Mx $\rightarrow 10^{-8}$ Wb = 10^{-8} V s
B	magnetic flux density, magnetic induction	1 G $\rightarrow 10^{-4}$ T = 10^{-4} Wb/m ²
H	magnetic field strength	1 Oe $\rightarrow 10^3/(4\pi)$ A/m
m	magnetic moment	1 erg/G = 1 emu $\rightarrow 10^{-3}$ A m ² = 10^{-3} J/T
M	magnetization	1 erg/(G cm ³) = 1 emu/cm ³ $\rightarrow 10^3$ A/m
$4\pi M$	magnetization	1 G $\rightarrow 10^3/(4\pi)$ A/m
σ	mass magnetization	1 erg/(G g) = 1 emu/g $\rightarrow 1$ A m ² /kg
j	magnetic dipole moment	1 erg/G = 1 emu $\rightarrow 4\pi \times 10^{-10}$ Wb m
J	magnetic polarization	1 erg/(G cm ³) = 1 emu/cm ³ $\rightarrow 4\pi \times 10^{-4}$ T
χ, κ	susceptibility	1 $\rightarrow 4\pi$
χ_p	mass susceptibility	1 cm ³ /g $\rightarrow 4\pi \times 10^{-3}$ m ³ /kg
μ	permeability	1 $\rightarrow 4\pi \times 10^{-7}$ H/m = $4\pi \times 10^{-7}$ Wb/(A m)
μ_r	relative permeability	$\mu \rightarrow \mu_r$
w, W	energy density	1 erg/cm ³ $\rightarrow 10^{-1}$ J/m ³
N, D	demagnetizing factor	1 $\rightarrow 1/(4\pi)$

No vertical lines in table. Statements that serve as captions for the entire table do not need footnote letters. This table was originally created in *Word* using 20 point font (to occupy the maximum width of a page), selected, and copied to the *Windows* Clipboard. In *Adobe Photoshop*, a new file was opened in "Bitmap" mode and the contents of the Clipboard was pasted. The table image was then cropped and resized to 3.45 inch width (while maintaining proportions), with a new resolution of 600 dpi. It was then saved as file 1TAB600.TIF with no compression. The image file was then inserted into this *Word* document as an image.

^aGaussian units are the same as cgs emu for magnetostatics; Mx = maxwell, G = gauss, Oe = oersted; Wb = weber, V = volt, s = second, T = tesla, m = meter, A = ampere, J = joule, kg = kilogram, H = henry.

Figure axis labels are often a source of confusion. Use words rather than symbols. Put units in parentheses. Do not label axes only with units. Figure labels should be legible, approximately 8 to 10 point type.

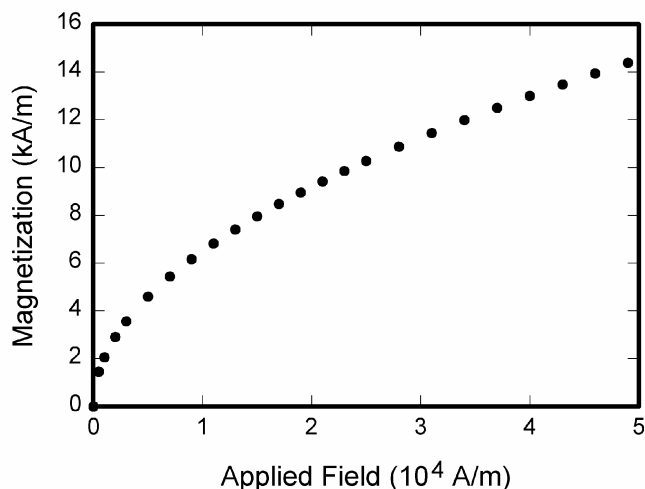


Fig. 1. Magnetization as a function of applied field.

B. References

Number citations consecutively in square brackets [1]. The sentence punctuation follows the brackets [2]. Multiple references [2], [3] are each numbered with separate brackets [1]-[3]. In sentences, refer to the reference number, as in [3]. Do not use "Ref. [3]" or "reference [3]" except at the beginning of a sentence: "Reference [3] shows...". Type the reference list at the end of the paper using the "References" style.

Capitalize only the first word in a paper title, except for proper nouns and element symbols. For papers published in translation journals, please give the English citation first, followed by the original foreign-language citation [7].

C. Abbreviations and Acronyms

Define abbreviations and acronyms the first time they are used in the text.

D. Equations

Number equations consecutively with equation numbers in parentheses flush with the right margin, as in (1). To make your equations more compact, you may use the solidus (/), the exp function, or appropriate exponents. Use parentheses to avoid ambiguities in denominators. Punctuate equations when they are part of a sentence, as in

$$\int_0^{r_2} F(r, \varphi) dr d\varphi = [\sigma r_2 / (2\mu_0)] \cdot \int_0^\infty \exp(-\lambda |z_j - z_i|) \lambda^{-1} J_1(\lambda r_2) J_0(\lambda r_i) d\lambda. \quad (1)$$

VI. REFERENCES

- [1] G. Eason, B. Noble, and I. N. Sneddon, "On certain integrals of Lipschitz-Hankel type involving products of Bessel functions," *Phil. Trans. Roy. Soc. London*, vol. A247, pp. 529-551, Apr. 1955.
- [2] J. Clerk Maxwell, *A Treatise on Electricity and Magnetism*, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp. 68-73.