Preparation of Papers in Two-Column Format for the Proceedings of the 1997 Simulation of Semiconductor Processes and Devices Conference

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Abstract--These instructions give you basic guidelines for preparing camera-ready papers for the *1997 Simulation of Semiconductor Process and Devices Conference*. You may use desktop publishing software with several type sizes or you may use reduction mats and a typewriter. Do not cite references in the abstract.

I. INTRODUCTION

Your goal is to simulate, as closely as possible, the usual appearance of typeset papers in the *Transactions*. One difference is that the authors' affiliations should appear immediately following their names. For items not addressed in these instructions, please refer to a recent issue of the journal.

A. Full-Size Camera-Ready (CR) Copy

If you have desktop publishing facilities, prepare your CR paper in full-size format, on paper 21.6 cm '27.9 cm (81/2 x 11 in). If you are using A4 (metric) paper, please cut the paper length to 28 cm.

1) Type sizes and typefaces: The best results will be obtained if your computer word processor has several type sizes. Try to follow the type sizes specified in Table I as best you can. As an aid to gauging type size, 1 point is about 0.35 mm. The size of a typeface in points (pts.) may be accurately estimated by measuring the distance from the top of an ascender to the bottom of a descender. In particular, the size of the lowercase letter "j" will give the point size. Use a proportional, serif typeface such as Times or Dutch Roman.

2) Format: In formatting your page, set top and bottom margins to 25 mm (1 in) and left and right margins to 18 mm (0.7in). (If you are using A4 paper, set the right margin to 12 mm.) The column width is 88 mm (3.45 in). The space between the two columns is 5 mm (0.2 in). Paragraph indentation is about 3.5 mm (0.14 in).

Left- and right-justify your columns. Use either one tables or figures, to adjust the column length. On the last page of your paper, try to adjust the lengths of the two columns so that they are the same. Use automatic hyphenation and check spelling. Either digitize or paste down your figures.

TABLE 1
TYPE SIZES FOR CAMERA-READY PAPERS

Type size (pts.)	Appearance		
	Regular	Bold	Italic
6	Table captions,[a] table superscripts		
8	Section titles,[a] references, tables, table names,[a] first letters in table captions,[a] figure captions, footnotes, text subscripts and superscripts		
9		Abstracts	
10	Authors' affiliations, main text, equations, first letters in section titles[a]		Subheadings
12	Authors' names		
14		Paper title	

a. Uppercase

II. UNITS

Use either SI (MKS) or CGS as primary units. (SI units are 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 "3.5-inch disk drive."

Avoid combining SI and CGS units, such as current in amperes and magnetic field in oersteds. This often leads to confusion because equations do not balance dimensionally. If you must use mixed units, clearly state the units for each quantify that you use in an equation.

III. HELPFUL HINTS

A. Figures and Tables

Position figures and tables at the tops and bottoms of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be above the tables. Avoid placing figures and tables before their first mention in the text. Use the abbreviation “Fig. 1,” even at the beginning of a sentence.

Figure axis labels are often a source of confusion. Try to use words rather than symbols. As an example, write the quantity “Magnetization,” or “Magnetization, M,” not just “M.” Put units in parentheses. Do not label axes only with units. In the example, write “Magnetization (A/m)” or “Magnetization (A • m^1),” not just units. For example, write “Temperature (K),” not “Temperature/K.”

Multipliers can be especially confusing. Write “Magnetization (kA/m)” or “Magnetization (10^3 A/m).” Do not write “Magnetization (A/m) x 1000” because the reader would not know whether the top axis label in Fig. 1 meant 15 000 A/m or 0.015 A/m. Figure labels should be legible, about 10 point type.

B. *References*

Number citations consecutively in square brackets [1]. The sentence punctuation follows the brackets [2]. Refer simply to the reference numbers, as in [3]. Do not use “Ref. [3]” or “reference [3]” except at the beginning of a sentence: “Reference [3] was the first...”

Number footnotes separately in superscripts.[1] Place the actual footnote at the bottom of the column in which it is cited. Do not put footnotes in the reference list. Use letters for table footnotes (see Table I). *IEEE Transactions* no longer use a journal prefix before the volume number. For example, use “*IEEE Trans. Magn*., vol. 25,”

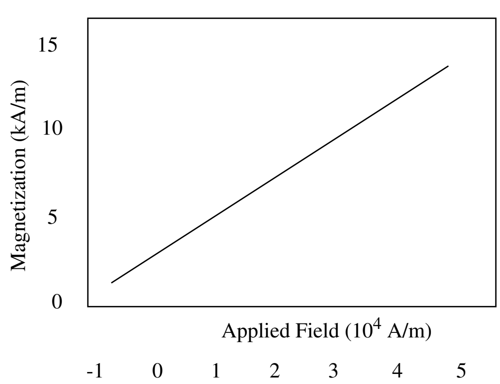

Fig. 1 Magnetization as a function of applied field. Note how the caption is centered in the column

1. It is recommended that footnotes be avoided (except for the unnumbered footnote with the receipt date). Instead, try to integrate the footnote information into the text.

not “vol. MAG-25.” Note that IEEE referencing style is quite different from that used by most physics journals.

Give all authors’ names; do not use “et al.” unless there are six authors or more. Papers that have not been published, even if they have been submitted for publication, should be cited as “unpublished” [4]. Papers that have been accepted for publication should be cited as “in press” [5]. Capitalize only the first words in a paper title, expect 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 [6].

C. Abbreviations and Acronyms

Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, ac, dc, and rms do not have to be defined. Do not use abbreviations in the title unless they are unavoidable (for example, the title of this article).

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. Italicize Roman symbols for quantities and variables, but not Greek symbols. Use a long dash rather than a hyphen for a minus sign. Use parentheses to avoid ambiguities in denominators. Punctuate equations with commas or periods when they are part of a sentence, as in

$$\int_0^{r_2} F(r, \varphi)(dr)d\varphi = \left[\frac{sr_2}{2\mu 0}\right]$$

$$\int_0^{\infty} \exp(-\lambda|zj - zi)\lambda - 1J1(\lambda ri)J0(\lambda ri)d\lambda \quad (1)$$

Be sure that the symbols in your equation have been defined before the equation appears or immediately following. Use “(1),” not “Eq. (1)” or “equation (1),” except at the beginning of a sentence: “Equation (1) is ...”

E. Other recommendations

Do not publish “preliminary” data or results. The Roman numeral used to number the section headings are optional. If you use them, number INTRODUCTION, but not ACKNOWLEDGMENT and REFERENCES, and begin Subheadings with letters. Use two spaces after periods (full stops). Hyphenate complex modifiers: “zero-field-cooled magnetization.” Avoid dangling participles, such as, “Using (1), the potential was calculated.” Write instead, “The potential was calculated using (1),” or “Using (1), we calculated the potential.”

Use a zero before decimal points: “0.25,” not “.25.” Use “cm^3”, not “cc.” Do not mix complete spellings and abbreviations of units: “Wb_2/m^2” or “webers per square meter,” not “webers/m^2.” Spell units when appear in text: “...a few henries,” not “...a few H.” If your native language is not English, try to get a native English-speaking colleague to proofread your paper. Number each page at the top, right corner: “1 of 3,” “2 of 3,” etc.

IV. SOME COMMON MISTAKES

The word “data” is plural, not singular. The subscript for the permeability of vacuum $_0$ is zero, not a lowercase letter “o.” In American English, periods and commas are within quotation marks, like “this period.” A parenthetical statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical *sentence* is punctuated within the parentheses.) A graph within a graph is an “inset,” not an “insert.” The world “alternatively” is preferred to the word “alternately” (unless you really mean something that alternates). Do not use the word “essentially” to mean “approximately” or “effectively.” Be aware of the different meanings of the homophones “affect” and “effect,” “complement” and “compliment,” “discreet” and “discrete,” “principal” and “principle.” Do not confuse “imply” and “infer.” The prefix “non” is not a word; it should be joined to the word it modifies, usually without a hyphen. There is no period after the “et” in the Latin abbreviation “et al.” The abbreviation “i.e.” means “that is,” and the abbreviation “e.g.” means “for example.” An excellent style manual and source of information for science writers is [7].

V. EDITORIAL POLICY

The IEEE Transactions on Magnetics does not publish conference records or proceedings of any kind. the policy of the Transactions is to publish submitted papers which may be related to conferences on basic and applied magnetics and which (1) conform to the high standards of the Transactions, (b) have undergone technical peer review, and (c) have been recommended for publication on the basis of such peer review. As a matter of convenience and service to the technical community, these peer-reviewed and accepted topical papers are collected and published in one issue of the Transactions using author-prepared copy.

ACKNOWLEDGMENT

The preferred spelling of the word “acknowledgment” in America is without an “e” after the “g.” Try to avoid the stilted expression, “One of us (R. B. G.) thanks ...” Instead, try “R. B. G. thanks ...” Put sponsor acknowledgments in the unnumbered footnote on the first page.

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, April 1955.

[2] J. Clerk Maxwell, *A Treatise on Electricity and Magnetism*, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp. 68-73.

[3] I. S. Jacobs and C. P. Bean, “Fine particles, thin films and exchange anisotropy,” in *Magnetism*, vol. III, G. T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271-350.

[4] K. Elissa, “Title of paper if known,” unpublished.

[5] R. Nicole, “Title of paper with only first word capitalized,” J. *Name Stand. Abbrev.*, in press.

[6] Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, “Electron spectroscopy studies on magneto-optical media and plastic substrate interface,” *IEEE Transl. J. Magn. Japan*, vol. 2, pp. 740-741, August 1987 [*Digests 9th Annual Conf. Magnetics Japan*, p. 301, 1982].

[7] M. Young, *The Technical Writer's Handbook*. Mill Valley, CA: University Science, 1989.