

Preparation of Papers in Two-Column Format for the Proceedings of the 2002 IEEE Radar Conference

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Abstract—These instructions give you basic guidelines for preparing camera-ready papers for the 2002 IEEE Radar Conference. You may use desktop publishing software with several type sizes or you may use 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 Do not cite references in the abstract.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 IEEE journal.

A. Camera-Ready (CR) Copy

If you have desktop publishing facilities, prepare your CR paper in full-size format, on paper 21.6 cm by 27.9 cm (8 1/2 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 (0.7 in). (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 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.

B. Typed Papers

If you are using a typewriter, please follow the same guidelines stated in the previous section. Reduction mats will

not be used. Attach figures with paste. If you do not have italics, use underlines. Do not use a dot-matrix printer. Avoid hand lettering. If you prepare the text with a computer, rather than a typewriter, type sizes should approximate those listed in Table I.

TABLE I
TYPE SIZES FOR CAMERA-READY PAPERS

Type size (pts.)	Appearance		
	Regular	Bold	Italics
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		Abstract	
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 quantity 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 below the figures; table captions should be above the tables. Avoid placing figures and tables

before their first mention in the text. Use the abbreviations ‘Fig. 1,’ even at the beginning of a sentence.

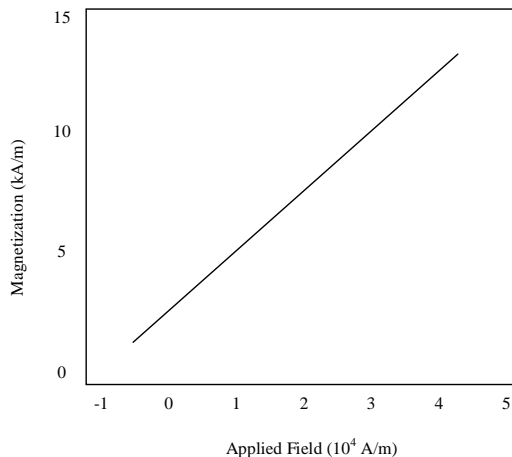


Fig. 1. Magnetization as a function of applied field. Note how the caption is centered in the column.

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 ($A \cdot m^{-1}$),’ not just ‘A/m.’ Do not label axes with a ratio of quantities and 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 Figure. 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 number, 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,’ not ‘vol. MAG-

¹ It is recommended that footnotes be avoided. Instead, try to integrate the footnote information into the text.

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 work 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 [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

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

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 numerals used to number the section headings are options. If you do use them, number INTRODUCTION, but not ACKNOWLEDGEMENT 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 zero before decimal points: “0.25,” not “.25.” Use “cm³,” not “cc.” Do not mix complete spellings and abbreviations of units: “Wb/m²” or “webers per square meter,” not “webers/m².” Spell units when they 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 μ_0 is zero, not a lower case 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 word “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. PAGE NUMBERING

The publisher will provide numbering on all pages in the published proceedings. However, using a non-photographic blue pencil, be sure to mark the upper right corner of the backside of your camera-ready paper with the appropriate page number. (Mark very lightly if using a regular pencil.) This step will help avoid any confusion regarding the page ordering of your paper.

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 an unnumbered footnote on the first page if desired.

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