

Preparation of Papers for Publication in IEEE Transactions on Dielectrics and Electrical Insulation

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ABSTRACT

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Index Terms — A list of the accepted IEEE/TDEI index terms are available on the **submission page**

1 INTRODUCTION

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Use italics for emphasis; do not underline. Turn off “smart quotes” (Tools | AutoCorrect | AutoFormat tabs). Turn off automatic hyphenation (Tools | Language | Hyphenation).

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2 PROCEDURE FOR PAPER SUBMISSION

This section covers the details regarding preparation of your manuscript for submission, the submission procedure, review process and copyright information.

2.1 PREPARATION OF MANUSCRIPT

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3 EDITORIAL POLICIES

The IEEE Dielectrics and Electrical Insulation Society (DEIS) is responsible for leadership, coordination, and communication among those who are concerned with dielectric phenomena and measurements; with development and characterization of gaseous, liquid, and solid electrical insulating materials and vacuum; and with utilization of these materials in circuits and systems under conditions of use. The Society offers two publications which are relevant to the dissemination of information within its scope: these TRANSACTIONS ON DIELECTRICS AND ELECTRICAL INSULATION and the EI MAGAZINE. In each publication, every paper is reviewed and evaluated for acceptability in terms of its relevance, its technical contribution, and, for the TRANSACTIONS ON DIELECTRICS AND ELECTRICAL INSULATION, its continuing value as part of the permanent literature.

Reports and articles worth writing deserve skillful presentation. The text must be stylistically and grammatically correct. The facts and ideas need to be expressed clearly, succinctly, and attractively for the average reader; the author should not assume that every reader is an expert in the author's field. Stimulating and informative communication of scientific and technical knowledge that has continuing value is required. Good style and clarity are courtesies that the author owes to the reader. The purpose of publication is to convey technical information. Good writing ensures that this is accomplished. The author need not be a member of the IEEE or of the DEIS. All persons active in the field are encouraged to submit papers for consideration, irrespective of professional affiliation.

Table 1. Units and Corresponding Symbols

Unit	Unit Symbol
megabytes per second	MB/s
kilohertz	kHz
nanosecond	ns

An essential part of research is open publication of its results. Therefore, it can be argued that a research project should bear part of the publication cost, usually paid in the form of page charges. Nevertheless, the DEIS currently does not levy page charges. All publication costs are paid by the DEIS as a service to its members and the research community. However, if either the figures, tables or other artwork in the manuscript violate the guidelines, or if changes are made on the final proof beyond the original manuscript, the author will be charged appropriate modification costs.

The TRANSACTIONS ON DIELECTRICS AND ELECTRICAL INSULATION is published bimonthly to provide a permanent record of the expanding corpus of scientific and technical knowledge for all IEEE members and others interested in the interdisciplinary field of dielectrics and electrical insulation. It is an archival publication which disseminates the results of fundamental and applied research. This journal is edited to encourage deeper understanding and greater effectiveness in the reporting of facts and theories germane to dielectric behavior and properties of electrical insulating materials and systems. Thoughtfully prepared and carefully documented papers dealing with fundamental concepts of dielectric behavior, with original theoretical and experimental studies, and with reproducible means of evaluating performance of materials and equipment are most appropriate. Tutorial or synoptic papers are encouraged, provided they present a fresh approach and a penetrating analysis of an established subject in the field of dielectrics or electric insulation.

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5 UNITS

Use only SI units. In cases where none SI units are desired these must be placed in parenthesis next to the SI units.

6 HELPFUL HINTS

6.1 FIGURES AND TABLES

Large figures and tables may span both columns. Place figure captions below the figures; place table titles above the tables. If your figure has two parts, for example, include the labels "(a)" and "(b)" as part of the artwork. Please verify that figures and tables that you mention in the text actually exist. Use 'Figure' even in the middle of sentence. Do not use the abbreviation "Fig.". Do not abbreviate "Table."

Figure axis labels are often a source of confusion. Use words rather than symbols. As an example, write the quantity "Rate," or "Rate, *R*," not just "*R*." Put units in parentheses. Do not label axes only with units. As in Figure 1, for example, write "Rate (kb/s)."

Multipliers can be especially confusing. Write "Rate (kb/s)" or "Rate (10^3 b/s)," not "Rate (b/s) \times 1000." Figure labels should be legible, approximately 8 to 12 point type.

6.2 REFERENCES

Number citations/references consecutively in square brackets [1]. The sentence punctuation follows the brackets [2]. Multiple references [2, 4-6] are numbered between same brackets. When citing a section in a book, please give the relevant page numbers [8]. In sentences, 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] shows”

Number footnotes separately in superscripts (Insert | Footnote).¹ Place the actual footnote at the bottom of the column in which it is cited; do not put footnotes in the reference list.

Note that IEEE referencing style is quite different from that used by most physics journals. Give all authors’ names; do not use “et al.” Use a space after authors’ initials. Papers that have not been published should be cited as “unpublished” [4]. Papers that have been submitted or accepted for publication should be cited as “submitted for publication” [5]. Please give affiliations and addresses for personal communications [6].

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6.3 ABBREVIATIONS

Define abbreviations and acronyms the first time they are used in the text, even after they have already been defined in the abstract. Abbreviations such as IEEE, SI, ac, and dc do not have to be defined. Abbreviations that incorporate periods should not have spaces: write “C.N.R.S.,” not “C. N. R. S.” Do not use abbreviations in the title unless they are unavoidable (for example, “IEEE” in the title of this article). For a more complete listing of common abbreviations and acronyms please refer to Appendix II of <http://www.ieee.org/organizations/pubs/transactions/auinfo00.pdf>.

6.4 EQUATIONS

Number equations consecutively with equation numbers in parentheses flush with the right margin, as in (1). First use the equation editor to create the equation. Then select the “Equation” markup style. Press the tab key and write the equation number in parentheses. 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

$$u(x, j\omega) = A \cosh(rx) + B \sinh(rx) \quad (1)$$

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

Be sure that the symbols in your equation have been defined before the equation appears or immediately following. Symbols should be as used in the equations either in Roman or italics. Refer to “equation (1)” not “Eq. (1)” or “(1),” except at the beginning of a sentence: “Equation (1) is”

6.5 OTHER RECOMMENDATIONS

Use one space after periods and colons. Hyphenate complex modifiers: “zero-field-cooled magnetization.” Avoid dangling participles, such as, “Using (1), the potential was calculated.” [It is not clear who or what used (1).] Write instead, “The potential was calculated by using equation (1) or “Using equation (1), we calculated the potential.”

Use a zero before decimal points: “0.25,” not “.25.” Use “cm³,” not “cc.” Indicate sample dimensions as “0.1 cm × 0.2 cm,” not “0.1 × 0.2 cm².” The abbreviation for “seconds” is “s,” not “sec.” Do not mix complete spellings and abbreviations of units: use “Mb/s” or “megabits per second,” not “megabits/s.” When expressing a range of values, write “7 to 9” or “7-9,” not “7~9.”

A parenthetical statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical sentence is punctuated outside the parentheses). In American English, periods and commas are outside quotation marks, like “this period”. Other punctuation is “outside”! Avoid contractions; for example, write “do not” instead of “don’t”.

Remember to check spelling. If your native language is not

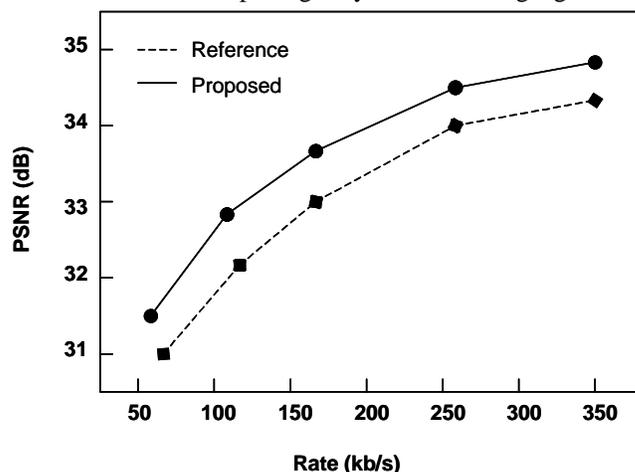


Figure 1. Rate-Distortion curves comparing Reference and Proposed algorithms. Note that “Fig.” is abbreviated. There is a period after the figure number, followed by two spaces. Please include the caption and illustration within a text-box. It is good practice to explain the significance of the figure. Make the caption bold.

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7 SOME COMMON MISTAKES

The word “data” is plural, not singular. Use the word “micrometer” instead of “micron.” 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). Use the word “whereas” instead of “while” (unless you are referring to simultaneous events). Do not use the word “essentially” to mean “approximately” or “effectively.” Do not use the word “issue” as a euphemism for “problem.”

Be aware of the different meanings of the homophones “affect” (usually a verb) and “effect” (usually a noun), “complement” and “compliment,” “discreet” and “discrete,” “principal” (e.g., “principal investigator”) and “principle” (e.g., “principle of measurement”). Do not confuse “imply” and “infer.”

Prefixes such as “non,” “sub,” “micro,” and “ultra” are not independent words; they should be joined to the words they modify, 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.”

A general IEEE style guide, *Information for Authors*, is available at: www.ieee.org/organizations/pubs/transactions/auinfo00.pdf.

8 CONCLUSION

A conclusion section is very useful. Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extensions.

APPENDIX

Appendices, if needed, appear before the acknowledgment.

ACKNOWLEDGMENT

The preferred spelling of the word “acknowledgment” in American English is without an “e” after the “g.” Use the singular heading even if you have many acknowledgments. Avoid expressions such as “One of us (S.B.A.) would like to thank” Instead, write “S.B.A. thanks” Put sponsor

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This template is based in part on that used by IEEE Transactions on Consumer Electronics and thanks are extended to the creators of that template.

REFERENCES

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- [8] D.E. Fred and G. Halo, *Superlative Insulators*, Plenty Press, Inc., New York, 2001, Ch.4.

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