

Instructions for Authors for Preparation and Submission of the Program Abstract and Paper for the *Proceedings* of the XXIXth URSI General Assembly to be Held in Chicago, IL, USA, August 7-16, 2008

*Principal Author Name*¹, *Coauthor Name*², *Coauthor Name*³

¹Affiliation of first author (to be prime contact) followed by complete mailing address (including country) and e-mail

²Affiliation (in this case underlined because expected to be presenter) followed by complete mailing address (including country) and e-mail

³If affiliation is identical, include separate e-mail with one of the above affiliations

Abstract

These instructions explain the process for preparing and submitting the program abstract and paper for the URSI General Assembly. Both the program abstract and the paper are to be submitted online, using the Web site at www.ece.uic.edu/2008ursiga. The program abstract (which is separate from and independent of the abstract for the paper) is to consist of no more than 100 words, and is entered online using only plain text. It will appear in the hardcopy Abstracts Book, and be used by attendees to help choose which papers to attend. The paper is to be prepared and submitted as a PDF file. It will be reviewed as part of the acceptance process for General Assembly papers, and if accepted it will appear in the CD-ROM *Proceedings* of the General Assembly.

1. Introduction

The proceedings for the XXIXth URSI General Assembly (GA), to be held August 7-16, 2008, will be published in electronic format as a CD-ROM. All participants will receive the CD-ROM, along with a hardcopy Abstracts Book, at the GA. The following instructions provide guidelines for preparing the paper in the required electronic format. Each submission should resemble these instructions in format and style when completed. Please read all instructions thoroughly to avoid errors that could result in your paper not being accepted by the Web site. All PDF files submitted to the Web site will be automatically checked for compliance with the PDF requirements, and rejected (with information about the cause) if not in compliance. Please submit your paper sufficiently in advance to allow time for you to correct any PDF problems. See Appendix 1 for information and suggestions on creating PDF files. Note that the appendices at the end of this document are for informational purposes and are not part of the document-submission format.

2. Submission Requirements

Publication of a paper in the electronic *Proceedings* of the 2008 URSI General Assembly is contingent upon the successful submission of the following two items to the GA Web site by **January 31, 2008**:

- An abstract for use in the Abstracts Book, entered in plain text directly into the Web site, not exceeding 100 words in length;
- A paper satisfying the length guidelines given below as a PDF file in a format that is accepted by the GA Web site.

In addition, by **May 16, 2008**:

- Payment in full of the GA registration fee for one of the authors.

3. Paper Preparation

Authors submitting papers to Commissions other than G, H, and J should provide a PDF containing the title of the paper, author name(s), affiliation(s), and the text of the paper and any figures in the format given herein, with a

maximum total length of four pages (except for student paper contest papers, which may be longer: see the requirements in the link on the Web site). Instead of a full paper, authors submitting papers to Commissions G, H, and J have the option of uploading a PDF containing a summary. At a minimum, this must include the title, authors, affiliations, and the 100-word program abstract. Longer summaries or a full paper (up to the four-page limit, unless it is a student paper contest paper) are recommended.

Papers should be prepared using the following guidelines.

3.1 Format

Please set your word-processing software for standard US letter-size paper (8.5 in × 11 in, or 21.6 cm × 27.9 cm). Margins should be set to 1 in (2.54 cm) on all four sides. Set the first three levels of tabs at 1 cm (0.39 in), 2 cm (0.79 in), and 3 cm (1.18 in). The text should be formatted in a single column, left and right justified. Use single spacing in the body of the text, with a blank line between paragraphs. Indent the first line of each paragraph one tab. Use the following guidelines for fonts:

Headings: 12 pt. bold Arial, centered, one blank line before and after the heading
Authors: 10 pt. bold italic Times New Roman, centered, one blank line after the list of authors
Affiliations: 10 pt. Times New Roman, centered, with one blank line after each affiliation
Text: 10 pt. Times New Roman, single column, left and right justified. Use single spacing in the body of the text and a blank line between paragraphs

Section headings should be numbered sequentially, with subheadings numbered as decimals, and sub-subheadings numbered similarly. Thus, the third sub-subhead in the second subsection of the fourth major section would be numbered 4.2.3.

Color is permitted in the proceedings, although its use should generally be restricted to figures.

It is strongly advised that header or footer notes, footnotes, and endnotes not be used.

3.2 Title and Author Affiliation

The paper title, authors' names, affiliations, complete mailing addresses, telephone and fax numbers, and e-mail addresses should be centered at the top of the first page using the font as indicated above. If there are several authors, the complete affiliation should be given for each author, using superscripts in the list of authors to relate affiliation to author. The name of the author expected to present the paper should be underlined (as above, this may come at any point in the list, although it will often be the first author). The first author named will normally be the first point of contact in communication with the GA Secretariat.

3.3 Figures and Tables

Figure captions should be below the figures; table captions should be above the tables. Try to avoid placing figures and tables before they are first mentioned in the text. All images must be embedded into your document. Note carefully that the type and parameters of the graphics you include may significantly affect both the quality of the graphics and the size of the resulting PDF file. See Appendix 2 for suggestions regarding graphics.

Figures and tables should be numbered sequentially in the order in which they are first cited in the text. All references, figures, and tables must be cited in the text, or in a table, or in a figure caption.

3.4 References

References should be numbered consecutively in the order in which they are first cited in the text. Citation in the text is done using the reference number in square brackets [1]. The sentence punctuation follows the brackets at the end of a sentence. Multiple citations are handled as follows: [1, 3-5, 13, 14]. In the list of references, list all authors' names.

Do not use et al. unless there are more than six authors. Samples of the format for the various types of references are given in Section 7.

3.5 Equations

Equations should be centered and numbered consecutively, with equation numbers in parentheses flush with the right margin. To make your equations more compact, you may use the solidus (/), the exp function, or appropriate exponents. Use Times New Roman italic for variables, standard for functions, and bold for vectors and matrices. A Greek symbol font should be used for symbols. Use a long dash rather than a hyphen for a minus sign (but not in place of a hyphen in the rest of the text, or in expressing ranges of numbers such pages in a reference). Use parenthesis and brackets to avoid ambiguities, particularly in denominators. Use the following order for precedence in using brackets: $\{ \} () []$. Punctuate equations with commas or periods when they are part of a sentence, even when they are set as “display” equations. Be sure that the symbols in your equation have been defined before the equation appears, or immediately following the first use. An example for an equation is as follows:

$$T_s = \frac{T_b}{1 + (\lambda T_b / \alpha) \ln \varepsilon} \quad (1)$$

3.6 Abbreviations and Acronyms

Define abbreviations and acronyms the first time they are used in the text, even if they have been defined in the abstract. Do not use abbreviations in the title unless they are unavoidable. In general, minimizing the use of abbreviations will make the text more readable.

3.7 Page Numbering

Do *not* number pages.

4. Producing the PDF

Adobe Portable Document Format (PDF) is the only acceptable format for the electronic submission of the paper. Suggestions on how to create acceptable PDF files are given in Appendix 1. Please note that the submission Web site will not accept a PDF file that is larger than 10383360 bytes.

5. Conclusion

Please do remember that while you can create an entry for your paper on the submission Web site and you can even enter the text abstract, your paper has not been successfully submitted until you have uploaded the PDF and the site has acknowledged that the PDF in compliance. Please take note of and keep the paper number assigned your paper by the Web site.

6. Acknowledgments

Significant portions of this material were used in the instructions for the 2002 and 2005 General Assemblies. The contributions from the authors of those instructions are gratefully acknowledged.

7. References

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8. Appendix 1: Generating PDF Files

Adobe Portable Document Format (PDF) is a universal file format that preserves the formatting of a source document, regardless of the application and platform used to create it. PDF files are compact and can be shared, viewed, navigated, and printed by anyone using the free Adobe Acrobat Reader. Although there are third-party packages that will produce compatible PDF files, Adobe Acrobat software (Exchange, Distiller) is recommended for producing the PDF files. Information on Adobe software can be found at <http://www.adobe.com>. At the time this was written, a limited number of documents in Microsoft *Word* .doc format and other formats (including PostScript) can be converted to PDF for free using a tool on the Adobe Web site at <http://createpdf.adobe.com/>.

LaTeX and other TeX files must be converted by the author and submitted in PDF format only. There is a variety of third-party software that will produce PDF files from (La)TeX. Some comments on converting (La)TeX files to compliant PDF are given in Section 8.2. Another way to convert (La)TeX to PDF is to convert (e.g., print) the (La)TeX to a PostScript file, and to then submit that PostScript file to the Adobe Web-based PDF conversion utility mentioned above. If this is done, please be *sure* to use only Type 1, TrueType, or Open Type fonts, and to embed *all* fonts. PostScript drivers are available for download from the Adobe Web site.

Do not submit scanned PDF files.

8.1 PDF Settings

The use of the following PDF settings in Acrobat Distiller or in the PDF Maker “applet” installed in Microsoft *Word* is recommended. To change settings in PDF Maker, use Adobe PDF...Change Conversion Settings...Advanced Settings and then click on each folder to access the various settings. To change settings in Distiller, use Settings...Edit Adobe PDF Settings... and then click on each folder. The following are the recommended settings:

PDF Version: PDF 1.4 (Acrobat 5) or later
Use passwords or security?: No
Use bookmarks or links: No
Allow crop marks, registration marks, or other marks?: No
PostScript code overrides setting file?: No
Embed all fonts: Yes
Embedded subset fonts: May be OK, but not recommended (i.e., set subsetting 100%)
Contains merged files or packaged files: No
Contains attachments: No
Latest version of fonts: Yes
Fast Web view (linearized): Yes
Open Type fonts: OK
Color images: 300 dpi resolution, bicubic downsampling, JPEG/medium compression
Grayscale images: 300 dpi resolution, bicubic downsampling, JPEG/medium compression
Monochrome images: 600 dpi resolution, bicubic downsampling, CCITT Group 4 compression, anti-alias off
Thumbnail of image in PDF: Yes

8.2 Comments Related to LaTeX and TeX File Conversion

Documents converted from the (La)TeX typesetting language into the Adobe PostScript language or Acrobat Portable Document format (PDF) files usually contain fixed-resolution (Type 3) bitmap fonts. These do not print or display well with a variety of printer and display environments. Only Type 1, TrueType, or Open Type versions of the fonts are acceptable.

As an example, the default behavior of Rakicki’s DVIPS is to embed Type 3 bitmapped fonts. You need access to the Type 1 versions of the fonts you use in your documents in order to embed the fonts. Type 1 versions of the Computer Modern fonts are available in the BaKoMa collection (<http://ctan.tug.org/tex-archive/fonts/cm/ps-type1/bakoma/>) and from commercial type vendors. Before distributing files with embedded fonts, consult the license agreement for your font package. Some typeface vendors do not allow you to embed complete fonts into a PDF file for public distribution. You may embed all fonts included in the Adobe Type library.

When using LaTeX, only embedded fonts should be used to ensure a decent conversion to PDF. Use of Times fonts are recommended. With LaTeX2e use the command `\usepackage{times}` and with LaTeX 2.09 use the command `\documentstyle[times]{...}`. You will need the following packages: `times.sty`, `rawfonts.sty`.

8.3 The Most Common Reasons PDF Files are Reported as Non-Compliant

1. Other than a single-column format has been used.
2. Encryption or other security settings have not been turned off (do *not* use a password on your PDF file).
3. Bitmap (e.g., Type 3) fonts have been used (use Type 1, TrueType, or Open Type fonts).
4. All fonts have not been embedded (it is also a good idea to set “Subset fonts” at 100%).
5. A scanned PDF file is submitted.
6. A link or bookmark has been included (e.g., by using PDF Maker in *Word* with its default setting to create a PDF from a *Word* document containing a Web or e-mail address that is a link).
7. Fonts in EPS graphics are either not embedded, or are bitmap fonts.

9. Appendix 2: Some Tips for Graphics

In general, the use of vector graphics, such as those produced by many presentation and drawing packages, can be used without concern and is encouraged. The use of bitmap images, such as those produced when a photograph is scanned, can require significant storage space and therefore must be used with care. Bitmap graphics store an image as a series of numbers that represent the color of each dot in the image. Increasing the size, resolution (dots per inch), or number of colors in an image will dramatically increase the size of the image.

If your paper contains many images and/or large images, they will be down-sampled to reduce their size during the process of converting to PDF format. However, the automated process used will not always produce the best image, and you are encouraged to perform down-sampling yourself on an image by image basis, using an image-manipulation program such as *PhotoShop*.

It is strongly recommended that you both look at the PDF you create on a computer display and print it out, paying particular care to the quality of the images, before you submit the PDF.

Where possible, bitmap images should be limited to 256 (8-bit) colors or gray scale. A resolution of 150 dpi is often adequate, particularly for screen shots. You can often reduce the number of display colors before making screen shots. The majority of computer applications use less than 16 colors for their menus, dialog boxes, etc.