

Author Instructions

AIP Conference Proceedings

Manuscripts

8.5 x 11 inch format
Double column



**AMERICAN
INSTITUTE
OF PHYSICS**

Melville, New York, 2008
AIP CONFERENCE PROCEEDINGS

Author Instructions – AIP Conference Proceedings

8.5 x 11 inch Double Column Format

General Information

AIP will publish your paper as received – this is different from journal publications. AIP does not copyedit or typeset your paper. Therefore it is imperative that you double check your paper carefully before submitting it to your volume editor. Contact your volume editor or conference chairperson regarding content, page limits, acceptable formats, and scheduling of your manuscript.

[Microsoft Word templates](#) for the 8.5 x 11 inch double column format are available. You can also follow the [sample paper](#) provided in pdf format, or you may also use the [LaTeX Classes and Guides](#) provided.

If you have questions regarding page layout, color artwork, permissions, or copyright, you may contact the AIP Special Publications and Proceedings Department in Melville, New York, USA via email at confproc@aip.org or mflikop@aip.org. You can also reach us by telephone at (516) 576-2477 or (516) 576-2460.

Consult the [AIP Style Manual](#) if you need further information on standard symbols, abbreviations, and the SI units, or guidance regarding the structure and style of a technical paper.

Manuscript Preparation

- Follow your volume editor's specifications regarding length of your paper, deadline, and submission options. AIP does not set these specifications.
- Figures: provide black-and-white figures if they should be printed in black-and-white. Some color figures can be printed in black-and-white, but generally only with some loss of information. Check your figure legends carefully and remove any mentioning of color if the figure is to be printed in black-and-white. **All color figures will be printed in black-and-white unless you make arrangements with your volume editor or AIP for color printing.** If you prefer printing your figures in color, AIP will need a formal letter or email from you accepting the color page charges. In the letter, please include the title of the conference, title of your paper, figure numbers to print in color, and complete address to where the invoice for the color charges should be sent. Please provide your full name, position with an organization, or the name and department of the school to which you are a student. If required by your institute, AIP will need a purchase order number as well.
- Figures and tables must be inserted in the text (as close as possible to their first mention in the text, preferably at the top or bottom of the page) and may not follow the Reference section.
- Please supply keywords and PACS codes for your article.

PACS is a hierarchical scheme for categorizing physics and astronomy research articles. There are 4 levels to the hierarchy; generally the most-specific possible PACS codes should be chosen, but the higher-level terms must also be consistent with the subject of the article. Typically 2-4 terms are sufficient to describe the most important topics covered by an article. More specific instructions and the scheme itself may be found at AIP's PACS website (<http://www.aip.org/pacs>).

Keywords should describe the main topics of the research reported in the article, with 3-8 keywords typically being sufficient. Very general terms are not necessary (e.g., "physics" or "astronomy"); keywords should instead describe specific topics and thus help someone searching for articles in these subject areas.

- Follow the [sample paper](#) in PDF format or use the [Microsoft Word templates](#) provided. You may also use the [LaTeX Classes and Guides](#). **Please note that the Word file must be converted to PDF for submission to AIP. If you will be using the LaTeX template provided you must convert your final submission to PDF. AIP can not accept LaTeX or Word files.**
-
- To avoid font problems, be sure to embed all fonts when saving your file. Hardcopy should be printed from the final file, and checked for any missing fonts. Look for blank spaces or any strange characters not in your original file that can indicate a dropped font.

How to Create a Production-Ready PDF File of Your Final Submission

- Make sure all images included in your submission were created using the guidelines provided in the below section named "Figure Position and Digital File Preparation."
- **ALL FONTS MUST BE EMBEDDED IN THE PDF. THIS INCLUDES ALL FONTS CONTAINED IN THE GRAPHIC IMAGES AS WELL.**
- **THE PDF FILE MUST BE CREATED USING A PROGRAM SUPPORTED BY ADOBE ACROBAT.**

How to Embed Fonts

You will be converting your source file, whether it is a Word file or LaTeX file to pdf for final submission to the proceedings. When creating the pdf file it is important to ensure that you embed all fonts.

In order to ensure there is no loss of information in the pdf file, all fonts must be embedded. **If your fonts are not embedded, your paper will not print correctly.** Fonts should be embedded when creating the initial pdf file.

Converting Word to PDF

When creating a pdf file from a Word file the settings to embed the fonts should be done in Word. When printing to pdf from Word, the options are chosen when creating your print settings. Below is how this should be done:

- Select Print
- In the print dialog box, select "Adobe PDF."
- Select "Properties."
- Under "Default Setting" select "High Quality Print."
- Select "Edit".
- Select "Fonts" from the left list of folders.
- If it is not already checked off, check the two boxes: "Embed all Fonts" and "Subset embedded fonts when percent of characters is less than 100 %."
- Hit "Ok".

Converting LaTeX to PDF

If you will be creating the pdf file directly from the LaTeX file the following command should be ran

- `pdflatex`

If you will be creating a .dvi file from the Latex file and then converting that to a postscript file, the following command should be ran

- dvi2ps

You will then need to convert the .ps file to a pdf file using Distiller. Your distiller settings should be set as follows:

- Set “Default Setting” to “High Quality Print.”
- Select "Settings" from the drop down menu.
- Select "Fonts" from the left list of folders.
- If it is not already checked off, check the two boxes: "Embed all Fonts" and "Subset embedded fronts when percent of characters is less than 100 %."
- Hit “Ok”.

How to Check the PDF File to Ensure All Fonts Are Embedded

Preflight Your File

It is important to check your final PDF file to make sure that all fonts are embedded and that your PDF is suitable to be printed on a digital press. If you have Adobe Profession, you can preflight your file.

- From your Main Menu, select Tools → Print Production → Pre-flight.
- Once the Preflight dialog box opens, select the profile “Digital press (b/w).” If your paper contains color which you have made arrangements with AIP to print in color select “Digital press (color).”
- The File will run through a quick diagnostic, and you will be provided a report listing all problems found with your file including any low resolution images or un-embedded fonts.

Figure Position and Digital File Preparation

How to Position the Figures

- Number figures in the order in which they appear in text. Check the order carefully.
- Label all figure parts with (a), (b), etc. Avoid any large disparity in size of lettering and labels used within one illustration.
- Ensure that lettering and lines are dark enough, and thick enough, to reproduce clearly.
- All figures should be inserted in the text as close to their first mention as possible.

How to Prepare Electronic Files for Figures

- Your original figure files should be created using the following formats: Postscript (.ps), Encapsulated PostScript (.eps), using Times Roman fonts, Tagged Image File Format (.tif), lzw compressed or Portable Document Format (.pdf). **Application files e.g., Corel Draw, Microsoft Word are not acceptable. We can not accept JPEG or GIF files as these are meant to be viewed on the screen only and the print quality will be very poor.**
- The original figures should be imported into the Word template in the correct location and orientation as to how it should display on the page. The Word template will then be converted to the final PDF submission according to the instructions provided above for creating the pdf files.

- **Settings: Set the dpi for the type of graphic as follows:**
 - **600 dpi resolution for line art**
 - **300 dpi for halftones**
 - **600 dpi for combinations line art halftones.**

- **Refrain from including type in your halftone (grayscale) image files, because it will print blurry.**
- Save line art as black/white bitmap, not grayscale.
- Save halftones and combinations as grayscale, not black/white bitmap.
- Create color files at 300 dpi TIFF, PS, or EPS format.
- When selecting a file mode, use CMYK (cyan, magenta, yellow, black).

Transfer of Copyright

- Your paper must be accompanied by a signed [Transfer of Copyright](#) form. AIP can not publish your paper without the signed Transfer of Copyright Form in its possession.

Offprint Order Form

- Complete the [Offprint Order Form](#), if you wish to order offprints of your paper.

Use of Previously Published Materials

- Use of previously published materials requires written permission from the original publisher and /or the original author.

- Permissions: To use previously published material from a book or journal, you must obtain written permission from the owner of the rights to the material (the original publisher and/or author). **It is your responsibility** to obtain permission to use copyrighted material. The executed permissions need to be sent along with the manuscript to your volume editor.

Write for permission as early as possible before your manuscript deadline. Publishers may be slow in responding to requests for permission, and it is possible that permission will be denied, or that you will be asked to also obtain the author's permission (in cases where the author controls sole rights, or joint rights with the publisher). In any case, it is in your own best interest to also ask the author of the original publication. If the author is difficult to locate, keep good records of your attempt.

Most publishers offer submission of permission requests online or via email, which may be the fastest and most convenient way of receiving a reply. Some examples with relevant links are:

Elsevier: http://www.elsevier.com/wps/find/obtainpermissionform.cws_home/obtainpermissionform

Nature: http://www.nature.com/help/reprints_and_permissions/permit_form.html

Springer: <http://www.springer.com/sgw/cda/frontpage/0,11855,4-122-12-69034-0,00.html>

Science: <http://www.sciencemag.org/subscriptions/permissions.dtl>

IEEE:

http://www.ieee.org/portal/site/mainsite/menuitem.818c0c39e85ef176fb2275875bac26c8/index.jsp?&pName=c_orp_level1&path=about/documentation/copyright&file=reqperm.xml&xsl=generic.xsl

The Astronomical Journal: http://www.journals.uchicago.edu/AJ/permission_text.html

The Astrophysical Journal: <http://www.journals.uchicago.edu/ApJ/about.html>

You may also use the [Permission Request Form](#) to request permission to reprint text, tables or figures. You may complete this form and fax it to the publisher or author of the material you wish to use.

When the signed permission is returned to you, **please insert any necessary credit lines** in your figure or table legends.

You do need permission to:

1. Quote verse, either in whole or in part.
2. Reproduce tables, graphs, drawings, and photos, or any copyrighted features that are complete in themselves.

NOTE: The mere *redrawing of an illustration is not enough to make it original*. There must be alterations that are themselves copyrightable. Even when intellectual additions are present, you must obtain permission from the copyright holder to alter the table or illustration.

NOTE: *Acknowledgment* of the source of material does not substitute for *obtained permission* to use the material. Always obtain permission when in doubt.

NOTE: It is a courtesy and it is in your best interest to *notify the original author* of your intention to reproduce his/her material. Many publishers actually require it.

You do not need permission to:

1. Use material from any AIP journal or magazine and also from select publications of constituent societies of AIP (please see the list of publications exempt from need of permission).
2. Use material in the public domain (material that is no longer or never has been protected by copyright, e.g. United States government reports, NASA publications, DOE publications). Note that a work which has passed into the public domain in the United States may still be protected under copyright in other countries. If so, you must obtain permission to use such material in order to enable AIP's worldwide distribution of your work.
3. Include material that falls within the Freedom of Information Act. This would include work done by a U.S. government employee and work published by the U.S. government.
4. Discuss another's *ideas* as long as that person's "literary expression" of the ideas is not used; you must keep in mind that the organization and selection of the material and its sequence are part of the "literary expression." When in doubt, obtain permission.
5. Include material when the use constitutes "fair use," such as quoting or paraphrasing copyrighted material for the purpose of scholarly comment, illustration, or criticism within a limited scope.

AIP AND MEMBER SOCIETIES' JOURNALS WHICH DO NOT REQUIRE PERMISSION REQUESTS

American Institute of Physics

*Applied Physics Letters
*CHAOS
*Computers in Physics
*The Industrial Physicist
*JETP Letters

*Journal of Applied Physics
*The Journal of Chemical Physics
*Journal of Experimental and Theoretical Physics
*Journal of Mathematical Physics

*Journal of Physical and Chemical Reference Data
*Low Temperature Physics
*Physics of Fluids
*Physics of Particles and Nuclei
*Physics of Plasmas
*Physics of the Solid State

*Physics Today

*Review of Scientific
Instruments
*Semiconductors
*Technical Physics
*Technical Physics Letters

American Vacuum Society

*Journal of Vacuum Science
and Technology A
*Journal of Vacuum Science
and Technology B
*Surface Science Spectra

The American Physical Society

*Physical Review A
*Physical Review B
*Physical Review C
*Physical Review D
*Physical Review E
*Physical Review Letters
*Reviews of Modern Physics

**The Acoustical Society of
America**

*The Journal of the Acoustical
Society of America

The Society of Rheology

*Journal of Rheology

**American Association of
Physics Teachers**

*American Journal of Physics
*The Physics Teacher

**American Crystallographic
Association**

*Transactions of the American
Crystallographic
Association-Proceedings
from the Annual Symposia

