

Author Instructions

AIP Conference Proceedings

Manuscripts

8.5 x 11 inch format
Single column



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INSTITUTE
OF PHYSICS**

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AIP CONFERENCE PROCEEDINGS

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8.5 x 11 inch Single Column Format

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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.

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- 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 Professional, 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).

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*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