Experimental Stress Analysis

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Abstract: Rules for preparing a paper for proceedings of the conference EAN 2012 are provided. After the basic requirements specific guidelines are given for all major elements of the paper (such as abstract, keywords, headings, figures, tables, equations, and references). The use of complete and properly formatted references is particularly important.

Keywords: Experimental; Stress; Analysis

1. Introduction

Papers up to a maximum of 8 pages will be reviewed by publishers and, when appropriate, returned to the authors for corrections or additions and then published in printed proceedings.

The authors should upload the **"CAMERA READY"** papers in Portable Document Format (**PDF**) with resolution 600 dpi at least, via on-line form at the conference web page **till 13th April 2012**. One file PDF for each paper is required. The name of the first author will identify the files i.e. "Novotny_P.pdf".

Verify that resolution of used figures is not decreased during conversion to PDF file (check downsampling setting). Select PDF/X-1a in conversion through Acrobat Distiller. Select PDF for Prepress when alternative products are used (e.g. PDF Creator). In case that page size of PDF document does not correspond to page size of MS Word's document, the used virtual PDF printer does not support the required page size. Then follow easy guide in Section 2 to create and use a custom page size.

The papers must be written **in English** and should be structured in the following way: abstract, keywords, introduction (problem statements, application area, research course), methods, results, conclusions and references.

Use common technical terms and Microsoft Windows Spelling and Grammar Tools.

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[3] *etc.*

2. Create and use a custom page size

It is important to distinguish between page size (as defined in MS Word's Document Setup window for your document) and paper size (the sheet of paper you will print on). Page size might be C5, but you need to print on a larger paper size A4. To ensure that document prints as expected, set up page size in both the MS Word and the virtual PDF printer.

2.1. Create a custom page size

1. Open the Printers or Printer and Faxes window from the Start menu.
2. Open the Server properties from the File menu.
3. In the Print Server Properties window select Create a new form.
4. Define a new Form name, e.g. EAN2012, by overwriting existing name. Specify required Unit of measurement and Paper size Width and Height.
5. Then click on the button Save Form.

2.2. Use the custom page size

1. In MS Word choose File -> Print Setup.
2. Open the Printing Preferences by clicking the button next to the name of the used virtual PDF printer.
3. Click Advanced button in the lower part of the window.
4. Select the new custom page size (Form name) from the Paper Size menu.

3. Typographical style

Adherence to the specifications of this style guide is essential for efficient review and a consistent appearance of papers in proceedings. All styles prepared for usage in this template are available by macros (remember to allow the macros to run). The macros accessible through buttons in two toolbars in menu make style rules setting easy. Note that there is a checklist available at the end of this sample paper that summarises the style specifications.

Do not add hyphenation at the end of a line. Do not number pages of document. Lines should be single-spaced.

3.1. Page layout

Paper size should be C5, 16.2 cm x 22.9 cm. Margins should be set for 1.8 cm top, 2.5 cm bottom, 2.1 cm left and right, 0 cm gutter, 1 cm header distance, 1.25 cm footer distance.

3.2. Fonts

All fonts for text should be Times New Roman. The main body of the text should be 10 pt (justified), the title should be 14 points (centered), affiliation should be 8 points, references should be 9 points

3.3. Title

Center the title. The title should be in bold font 14 points. Use initial cap for the first word in title or for proper nouns. Use lowercase following colon. Title should not begin with an article or contain the words "first," "new" or "novel." Insert space 12 points below the title.

3.4. Author name

Center author names in 10 points. Author names should appear as used for conventional publication, with first and middle names followed by surname. Insert space 10 points below the paragraph.

3.5. Author affiliation

All affiliations should be inserted as footnote and should be italic 8 points, alignment left. The first line is indented –0.18 cm. At the beginning of the line is a superscript number corresponding to superscript number at the author name. If needed soft-returns (Shift + Enter key) should be used for line breaks within a single paragraph. Abbreviations should not be used.

3.6. Abstract

Begin the section with the word "Abstract:" in bold followed by a colon. Indent left and right margins 0.5 cm. Font size is 9 points and alignment justified. Create space 5 points below abstract. The abstract should not be longer than 100 words. It should be an explicit summary of the paper.

3.7. Keywords

Begin the section with the word "Keywords:" in bold followed by a colon. Indent left and right margins 0.5 cm. Font size is 9 points and alignment justified. Insert space 10 points below the paragraph.

3.8. Main text

The first line of the first paragraph of a section, subsection or sub-subsection should start flush left (first line indent 0 cm). The first line of subsequent paragraphs within the section, subsection or sub-subsection should be indented by 0.9 cm. Insert space 5 points below each paragraph. Alignment of all main text should be justified.

3.8.1. Section headings

Section headings should be in 10 points. Section headings (**1. Abc**) should be in bold. Insert space 5 points above and below the section headings. All the headings should be numbered consecutively throughout the paper in Arabic numbers. Start the section headings flush left.

3.8.2. Subsection and sub-subsection headings

Subsection and sub-subsection headings should be in 10 points. Subsection headings (*1.1. Abc*) should be in italic, sub-subsection headings (1.1.1. Abc) should be normal. Insert space 5 points below the subsection and sub-subsection headings. All

the headings should be numbered consecutively throughout the paper in Arabic numbers. Start the subsection and sub-subsection headings flush left.

3.9. Figures

Figures (pictures, photographs, drawings, graphs, etc) should be directly included into the document. Insert figures with Insert command and not with Link to file command. Please make sure that all the objects inserted into the text are actually embedded in your file and not just linked to other files on your hard disk. Place figures as closely as possible to point in the text where they are referenced. Figures should not go beyond the printing area. They must not be inserted as floating objects, insert figures as objects that are fixed in the text and follow the text.

Place the figures between paragraphs and center them between the margins. You should put a figure into a table with two lines, the first line should be used for the figure and the second line should be used for a figure caption (Fig. 1). The table should be with no border. Photographs should be scanned in and placed in the text just as other figures. Figures in the table should be centered horizontally and vertically. The table itself should be centered horizontally in the printing area. Insert space 5 points above and below the paragraph in a table cell containing the figure.
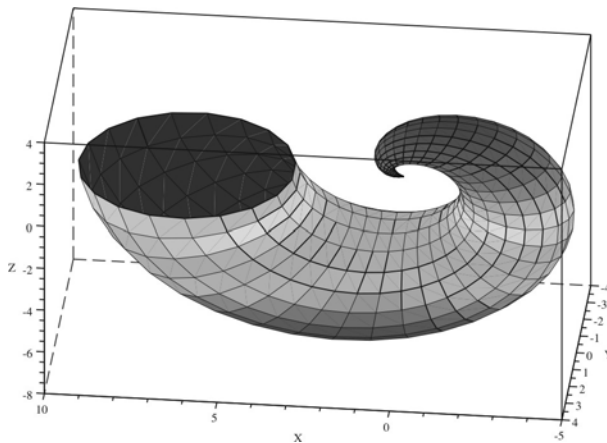

Fig. 1. Figure caption uses Times New Roman, font size 8 pt. Put the "Fig. x." part of the figure caption in bold.

If you want to put two or more figures side by side, insert them into a table with the appropriate number of columns, what allows you to place the figure captions beneath them correctly (Fig. 2).
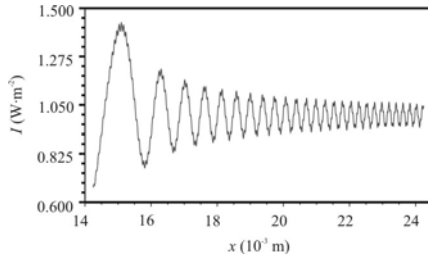
Fig. 2. Times New Roman, font size 8 pt. Put the "Fig. x." part of the figure caption in bold.
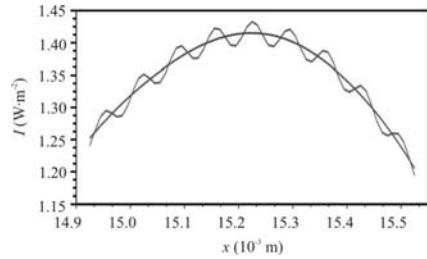
Fig. 3. Times New Roman, font size 8 pt. Put the "Fig. x." part of the figure caption in bold.

Figure caption begins with the abbreviation "Fig." for figure followed by the figure number and a period (all in bold). Indent left and right margins 0.5 cm. Font size is 8 points and alignment justified. Insert space 10 points below the figure caption. All illustrations must be numbered consecutively (i.e., not by section) with Arabic numbers.

Figures have to be made in high quality, which is suitable for reproduction and print. For reproduction with aspect ratio 1:1 optimal resolution is 300-600 dpi. Colour photographs and figures are required. In case of figure scan put black paper under style sheet the text from underside not to appear.

3.10. Graphs

Graphs should be inserted into the text as figures, see Section 3.9.

3.11. Equations

Equations should be centered and numbered in the order in which they appear in the text and should be referenced from within the text as Eq. (1). Center equations in a line through tab stop set at 6 cm, type centered. Place equation number in parenthesis at the right-hand margin of the line through tab stop set at 12 cm, type right-justified. Insert space 5 points below the line containing the equation. For very long equations, the right side of the equation should be broken into approximately equal parts and aligned to the right of the equal sign.

$$U(\mathbf{g}) = \frac{1}{i\lambda} \iint u_1(\mathbf{f}) \exp[-ikL_o]$$
$$\times \exp[ik\mathbf{I}(\mathbf{f})\mathbf{a}_1(\mathbf{f})] \exp\left[-\frac{ik}{2L_o}(f^2+g^2)\right] \exp\left[\frac{ik}{L_o}\mathbf{fg}\right] d\mathbf{f} \tag{1}$$

In-line math of simple fractions should use parentheses to avoid ambiguity, for example, between $1/(n+1)$ and $1/n+1$. Fractions such as $\frac{1}{2}$ are better placed in this form (vertical fraction with reduced size). Summations and integrals placed within text such as $\int_0^x \sin(\frac{1}{2}\pi\alpha)\,d\alpha$ should have limits placed to the right of the

symbol to reduce white space between lines. Use MS Word Equation Editor 2.0 or 3.0. Recommended mathematical element sizes can be found in Table 1.

Table 1. Recommended mathematical element sizes

Mathematical element	Size (points)
Normal	10
Subscript or Superscript	6
Sub-Subscript or Sub-Superscript	5
Symbol	16 (12 for in-line math)
Sub-Symbol	10

3.12. Special signs

Special signs, for example, α β γ μ Δ ε λ Ω () $\geq \pm \Gamma$, should always be written in with the fonts Times New Roman or Symbol.

3.13. Tables

Tables should be centered and numbered consecutively. Tables should be placed in the text close to where they are first mentioned. The authors must use MS Word's Table editor to insert tables. The authors must not import tables from MS Excel or other spreadsheet applications. A single MS Word table should contain whole content for the table. Position tables in the text so as page break not to be located within the table. The authors should use horizontal lines to delimit the top and bottom of the table and column headings. Detailed explanations or table footnotes should be typed directly beneath the table (Table 2). Font size of the text in table cells is 8 points. Insert space 2 points above and below the text in the table cells.

Table 2. Elastic Moduli of Cubic Crystals in 10^{12} dynes·cm^{2} [a]

Material	C_{xxxx}	C_{xxyy}	C_{xyxy}
Na	0.055	0.042	0.049
K	0.046	0.037	0.026
Fe	2.37	1.41	1.16
Diamond	10.76	1.25	5.76
Al	1.08	0.62	0.28

[a]C. Kittel, *Introduction to Solid State Physics*, John Wiley and Sons, Inc., New York, 2nd ed., 1956.

Table head should be in bold, should begin with the word "Table" followed by the table number and a period. Font size is 8 points and alignment centered. Table head should be placed above the table as shown in Table 2. If needed soft-returns (Shift + Enter key) should be used for line breaks within a single paragraph. Insert space 5 points above and below the table head. Insert space 8 points below the table (Table 2) or append one empty row to the table bottom (Table 1).

3.14. Acknowledgements

Acknowledgements should be placed at the end of the paper (between the sections Summary/Conclusions and References). The head of this section should be the word "Acknowledgements" in bold, font size 10 points, aligned left and without a section number. Insert space 5 points above and below the section head. All appropriate funding sources by name and contract number should be identified in the Acknowledgements section.

3.15. References

References should be located at the end of the paper in the order in which they are referenced in the text. The head of this section is the word "References" in bold, font size 10 points, aligned left and without a section number. Insert space 5 points above and below the section head. Font size of the references is 9 points. All references should be aligned left. Insert space 1 point below each reference. If automatic numbering is used then set left margin indentation 0.51 cm and first line indentation -0.28 cm.

References should be designated in the text by a sequence number in square brackets [1]. They should be numbered in the order in which they appear in the text. Two references [2,3] should be typed together and separated by a comma Three or more consecutive references should be indicated as interval [4-10], i.e. by the first and last number of the reference series separated by a dash.

The reference should provide the authors names (surnames followed by initials) and then the title of the paper, the name of the journal or conference in which it was published, the volume number in bold (if applicable) and the year of publication and page numbers. All references should be complete so that they can be found by anyone wishing to follow them up. ISBN/ISSN numbers should be provided where they have been allocated. For books the place of publication is required. The reference list at the end of this sample paper contains examples of the referencing of variety of journal, conference, book and other references the style of which should be followed in preparing your paper.

References

[1] Surname N.M., Surname N. and Surname N., *Name of Book (in Italics)* (Publisher, Place of Publication, YYYY). ISBN.

[2] Surname N.M. and Surname N., "Name of paper or Chapter," in *Name of Book (in Italics)*, Surname N., ed. (Publisher, Place of Publication, YYYY), pp. xxx-yyy. ISBN.

[3] Surname N.M., Surname N. and Surname N., "Title of conference paper," in *Proceedings of xxx xxx*, conference location, Year (Publisher, Place of Publication, YYYY), pp. xxx-yyy. ISBN/ISSN.

[4] Surname N., "Name of paper," *Name of Journal (in Italics)*, **VV**(NN), pp. xxx-yyy (YYYY). ISSN.

[5] Surname N.M. and Surname N., "Name of Paper," *Available from* http://www.exact-address-of-site *Accessed:* YYYY-MM-DD.

Table 3. EAN 2012 paper style guide (part 1)

Paper Format: C5 (16.2 x 22.9 cm), Portrait; **Margins:** 1.8 cm top, 2.5 cm bottom, 2.1 cm left & right; **Gutter:** 0 cm; **Header Distance:** 1 cm; **Footer Distance:** 1.25 cm

Type of Text	Font Size (Points)	Type face	Indent	Alignment	Space Above/ Below Paragraph (Points)	Macro-Style	Notes
All text in the paper			Times New Roman				
Title	14	**Bold**	None	Center	Above: 0 Below: 12	Title	
Author name	10		None	Center	Above: 0 Below: 10	Author	
Author affiliation	8	*Italic*	First line: -0.18 cm (Outdent)	Left	Above: 0 Below: 0	Author affiliation	
Abstract	9		Left & Right: 0.5 cm	Justified	Above: 0 Below: 5	Abstract	a)
Keywords	9		Left & Right: 0.5 cm	Justified	Above: 0 Below: 10	Keywords	b)
Section head	10	**Bold**	None	Left	Above: 5 Below: 5	Section Head	
Subsection head	10	*Italic*	None	Left	Above: 0 Below: 5	Subsection Head	
Sub-Subsection Head	10		None	Left	Above: 0 Below: 5	Sub-Subsection Head	
Main text * First paragraph * Subsequent paragraphs * First paragraph below table	10 10 10		* None * First line: 0.9 cm * First line: 0.9 cm	Justified Justified Justified	Above: 0 Below: 5 Below: 5 Above: 8 Below: 5	* Body * Body + Indent Line * Body below table	c)
Figures			None	Center	Above: 5 Below: 5	Figure	d)
Figure captions	8		Left & Right: 0.5 cm	Justified	Above: 0 Below: 10	Figure Caption	e)

a) Bold "**Abstract:**"
b) Bold "**Keywords:**"
c) The first paragraph of a section/subsection/sub-subsection is not indented. The first line of subsequent paragraphs is indented (0.9cm). The first paragraph below table has the space above 8 points.
d) Insert figures into tables.
e) Insert figure captions into tables. Bold "**Fig. X.**".

Table 4. EAN 2012 paper style guide (part 2)

Type of Text	Font Size (Points)	Type face	Indent	Align ment	Space Above/ Below Paragraph (Points)	Style	Notes
Tables			None	Center			
Text in cells of tables	8		None		Above: 2 Below: 2	Table Text	
Table heads (captions)	8	**Bold**	None	Center	Above: 5 Below: 5	Table Head	f)
Equations			None	Center	Above: 0 Below: 5	Equation	g)
Acknowledge ment title	10	**Bold**	None	Left	Above: 5 Below: 5	Acknowledgement Title	
Reference title	10	**Bold**	None	Left	Above: 5 Below: 5	Reference Title	
References	9		Automatic numbering: * Left: 0.51 cm * First line: -0.28 cm	Left	Above: 0 Below 1	Reference	

f) Table head (caption) above the table.
g) Insert Equation by means of centered tab. Insert Eq. number in parentheses by means of right tab to end of line with Equation.