Preparing a paper using Microsoft Word for book chapter published by Springer

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**Abstract**  All articles *must* contain an abstract.The abstract text should be formatted using 10 point Times (or Times Roman, or Times New Roman) and indented 25 mm from the left margin. Leave 10 mm space after the abstract before you begin the main text of your article. The text of your article should start on the same page as the abstract. The abstract follows the addresses and should give readers concise information about the content of the article and indicate the main results obtained and conclusions drawn. As the abstract is not part of the text it should be complete in itself; no table numbers, figure numbers, references or displayed mathematical expressions should be included. It should be suitable for direct inclusion in abstracting services and should not normally exceed 200 words. The abstract should generally be restricted to a single paragraph. Since contemporary information-retrieval systems rely heavily on the content of titles and abstracts to identify relevant articles in literature searches, great care should be taken in constructing both.

1 Introduction

These guidelines, written in the style of a submission to *Springer*, discuss how to prepare your paper using Microsoft Word for chapter in book [1]. In addition to the usual guidance on style/formatting, there are notes and links to assist in using some of Word’s features such as inserting graphics, formatting equations and so forth [2].

Page layout (headers, footers, page numbers and margins). If you don’t wish to use the Word template provided, please set the margins of your Word document as follows [3].

2 Methodology

**2.1Formatting the title, authors and affiliations**

In this section we discuss how to format the title, authors and affiliations. Please follow these instructions as carefully as possible so all articles within a conference have the same style to the title page. This paragraph follows a section title so it should not be indented.

2.1. Formatting the title

The title is set 16 point Times Bold, flush left, unjustified. The first letter of the title should be capitalized with the rest in lower case. It should not be indented, as shown above. Leave 28 mm of space above the title and 10 mm after the title. The easiest way to do this is to select **Format** 🡪 **Paragraph** and set the ‘Spacing Before’ value to 28 mm and ‘Spacing After’ to 10 mm.

*2.1.1 Headers, footers, and footnotes*

It is *vital* that you **do not add any headers, footers, footnote or page numbers to your paper**; these will be added during the production process at Springer Publishing (this is why the Header and Footer margins are set to 0 cm in Table 1).

|  |  |  |
| --- | --- | --- |
| **Table 1** Setting Word’s margins for A4 and US Letter paper | | |
| Margin | **A4** | **US Letter** |
| Top | 5.2 cm | 3.1 cm |
| Bottom | 5.7 cm | 1.8 cm |
| Left | 4.6 cm | 2.8 cm |
| Right | 4.7 cm | 2.8 cm |
| Guttera | 0 cm | 0 cm |
| Headera | 0 cm | 0 cm |
| Footera | 0 cm | 0 cm |
| a These ***must*** be set to 0 cm. In addition, please make sure the *Mirror Margins* option is ***not*** selected. | | |

**2.2 Formatting author affiliation**

Please ensure that affiliations are as full and complete as possible and include the country. The addresses of the authors’ affiliations follow the list of authors and should also be indented 25 mm to match the abstract. If the authors are at different addresses, numbered superscripts should be used after each surname to reference an author to his/her address. The numbered superscripts should not be inserted using Word’s footnote command because this will place the reference in the wrong place—at the bottom of the page (or end of the document) rather than next to the address. Ensure that any numbered superscripts used to link author names and addresses start at 1 and continue on to the number of affiliations. Do not add any footnotes until all the author names are linked to the addresses.

2.3 Sections, subsections and subsubsections

The use of sections to divide the text of the paper is optional and left as a decision for the author. Where the author wishes to divide the paper into sections the formatting shown in table 2 should be used.

2.3.1 Style and spacing

|  |  |  |
| --- | --- | --- |
| **Table 2** Formatting sections, subsections and subsubsections | | |
|  | Font | Spacing |
| Section | 12 point **Times bold** | 1 line space before a section  No additional space after a section heading |
| Subsection | 11 point Times **bold** | 1 line space before a subsection  No space after a subsubsection heading |
| Subsubsection | 11 point *Times Italic* | Subsubsections should end with a full stop (period) and run into the text of the paragraph |

2.4 Figures

Each figure should have a brief caption describing it and, if necessary, a key to interpret the various lines and symbols on the figure.

2.4.1 Space considerations

Authors should try to make economical use of the space on the page; for example:

* avoid excessively large white space borders *around* your graphics;
* try to design illustrations that make good use of the available space—avoid unnecessarily large amounts of white space *within* the graphic;

|  |
| --- |
| WiderFigureShortCaption |
| **Fig. 1** Figure with short caption (caption left) |

2.4.2 Text in figures

Wherever possible try to ensure that the size of the text in your figures (apart from superscripts/subscripts) is approximately the same size as the main text (11 points).

2.4.3 Line thickness

In general, try to avoid extremely fine lines (often called ‘hairline’ thickness) because such lines often do not reproduce well when printed out—your diagrams may lose vital information when downloaded and printed by other researchers. Try to ensure that lines are no thinner than 0.25 pt. Note that some illustrations may reduce line thickness when the graphic is imported and reduced in size (scaled down) inside Microsoft Word.

2.4.4 Colour illustrations

You are free to use colour illustrations for the online version of *Springer* but any print version will only be printed in black and white **unless special arrangements have been made with your conference organizer for colour printing. Please check with the conference organizer whether or not this is the case.** If any print version will be black and white only, you should check your figure captions carefully and remove any reference to colour in the illustration and text. In addition, some colour figures will degrade or suffer loss of information when converted to black and white and this should be taken into account when preparing them.

2.4.5 Positioning figures

Individual figures should normally be centred but place two figures side-by-side if they will fit comfortably like this as it saves space. Place the figure as close as possible after the point where it is first referenced in the text. If there are a large number of figures it might be necessary to place some before their text citation. Figures should never appear within or after the reference list.

2.4.6 Figure captions/numbering

Captions should be below the figure and separated from it by a distance of 6 points—although to save space it is acceptable to put the caption next to the figure. Figures should be numbered sequentially through the text—‘Fig. 1’, ‘Fig. 2’ and so forth.

For captions not placed at the side of the figure, captions should be set to the width of the figure for wider figures, centred across the width of the figure, or, for narrow figures with wide captions, slightly extended beyond the width of the figure. The caption should finish with a full stop (period).

2.4.6.1 How to format figures and captions.

One of the easiest ways to format a figure and the corresponding caption is to place the figure and caption in a table containing one column and two rows; place the graphic in the top row and the caption in the bottom row. To format the figure/table combination, you can adjust the width of the table, centre the table and adjust the width of the rows to give the appropriate layout.

2.4.6.2 Examples. The following examples show how to format a number of different figure/caption combinations. **Note that the table borders are shown as broken lines for guidance only; they should not, of course, be shown in your actual paper.**

2.5 Tables

Note that as a general principle, for large tables font sizes can be reduced to make the table fit on a page or fit to the width of the text.

2.5.1 Positioning tables

Tables should be centred unless they occupy the full width of the text.

2.5.2 Tables in parts

If a table is divided into parts these should be labelled (a), (b), (c) etc but there should only be one caption for the whole table, not separate ones for each part.

2.5.3 Table captions/numbering

Tables should be numbered sequentially throughout the text and referred to in the text by number (Table 1, **not** Tab. 1 etc). Captions should be placed at the top of the table and should have a full stop (period) at the end. Except for very narrow tables with a wide caption (see examples below) the caption should be the same width as the table. Note, to set captions to be the same width as the table, one convenient method is to place the caption inside a row at the top of the table and merge (combine) the cells together so that you have a single table cell the width of the table (select the row to contain the caption and do **Table**🡪 **Merge** **Cells**).

2.5.3.1 Rules in tables

Tables should have only horizontal rules and no vertical ones. Generally, only three rules should be used: one at the top of the table, one at the bottom, and one to separate the entries from the column headings.

2.5.3.2 Examples

Because tables can take many forms, it is difficult to provide detailed guidelines; however, the following examples demonstrate our preferred styles.

2.5.3.3 A simple table. The following example is a simple, narrow table. Here we extend the caption text outside the width of the table.

|  |  |  |
| --- | --- | --- |
| **Table 2** A simple table. Place the caption above the table. Here the caption is wider than the table so we extend it slightly outside the width of the table. Justify the text. Leave 6 pt of space between the caption and the top of the table. | | |
| Distance (m) | Velocity (ms–1) |
| 100 | 23.56 |
| 150 | 34.64 |
| 200 | 23.76 |
| 250 | 27.9 |

**3 Results and Discussion**

3.1 Equations and mathematics

3.1.1 Fonts in Equation Editor (or MathType)

Make sure that your Equation Editor or MathType fonts, including sizes, are set up to match the text of your document.

In the points of vector style*,* **Bold italic** characters is our preferred style but the author may use any standard notation; f*or example, any of these styles for vectors is acceptable:*

‘the vector cross product of ***a*** and ***b*** is given by …’, or

‘the vector cross product of **a** and **b** is given by …’, or

‘the vector cross product of and is given by …’.

The solidus (). A two-line solidus should be avoided where possible; for example, use

* instead of  (3.1)
*  instead of  (3.2)

3.1.2 Roman and italic in mathematics

Variables should be in italic; however there are some cases where it is better to use a Roman font:

* Use a Roman d for a differential d, for example, 
* Use a Roman e for an exponential e; for example, 
* Use a Roman i for the square root of –1; e.g., 
* Certain other common mathematical functions, such as cos, sin, det and ker, should appear in Roman type.
* Subscripts and superscripts should be in Roman type if they are labels rather than variables or characters that take values. For example in the equation

 (3.3)

*m*, the *z* component of the nuclear spin, is italic because it can have different values whereas n is Roman because it is a label meaning nuclear.

3.1.3 Alignment of mathematics

The preferred style for displayed mathematics in *Springer* is to centre equations; however, long equations that will not fit on one line, or need to be continued on subsequent lines, should start flush left. Any continuation lines in such equations should be indented by 25 mm.

Equations should be split at mathematically sound points, often immediately before =, + or – signs or between terms multiplied together. The connecting signs are not repeated and appear only at the beginning of the turned-over line. A multiplication sign should be added to the start of turned-over lines where the break is between two multiplied terms.

3.1.4 Small displayed equations: Some examples:

 (1)

 (2)

(3)

However, if equations will fit on one line, do so; for example, (5) may also be formatted as:

 (6)

* + 1. Large display equations: examples. If an equation is almost the width of a line, place it flush left against the margin to allow room for the equation number.

 (7)



 (8)

**3.2 Miscellaneous points**

* Exponential expressions, especially those containing subscripts or superscripts, are clearer if the notation  is used, except for simple examples. For instance, and  are preferred to and  but is acceptable. Similarly the square root sign  should only be used with relatively simple expressions, e.g. and  but in other cases the power should be used.
* It is important to distinguish between and 
* Braces, brackets and parentheses should be used in the following order: {[()]}. The same ordering of brackets should be used within each size. However, this ordering can be ignored if the brackets have a special meaning (e.g. if they denote an average or a function).
* Decimal fractions should always be preceded by a zero: for example 0.123 *not* .123 (note, do not use commas, use the decimal point).
* Equations that are referred to in the text should be numbered with the number on the right-hand side.

6 Conclusion

Up to ten authors may be given in a particular reference; where there are more than ten only the first should be given followed by *et al*.

Abbreviations of the names of periodicals used by IOP Publishing are usually the same as those given in British Standard BS 4148: 1985. If an author is unsure of an abbreviation it is best to leave the title in full. The terms *loc. cit.* and *ibid* should not be used.

Unpublished conferences and reports should generally not be included in the reference list and articles in the course of publication should be entered only if the journal of publication is known. A thesis submitted for a higher degree may be included in the reference list if it has not been superseded by a published paper and is available through a library; sufficient information should be given for it to be traced readily.

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References

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