

# Manuscript preparation guidelines for authors of physica status solidi – $\text{\LaTeX}$ template

Sabine Bahrs<sup>\*,1</sup>, Stefan Hildebrandt<sup>1</sup>, Irina Juschak<sup>1</sup>, Heike Höpcke<sup>1</sup>, André Danelius<sup>1</sup>, and Martin Stutzmann<sup>1,2</sup>

<sup>1</sup> physica status solidi, Wiley-VCH Verlag GmbH & Co. KGaA, Rotherstraße 21, 10245 Berlin, Germany

<sup>2</sup> Walter Schottky Institute, Technical University Munich, Am Coulombwall, 85748 Garching, Germany

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\* Corresponding author: e-mail [pss@wiley-vch.de](mailto:pss@wiley-vch.de), Phone: +49 30 470 31 331, Fax: +49 30 470 31 334, Web: [www.pss-a.com](http://www.pss-a.com), [www.pss-b.com](http://www.pss-b.com), [www.pss-c.com](http://www.pss-c.com), [www.pss-rapid.com](http://www.pss-rapid.com)

This manual is part of the template package for authors preparing their work for submission to pss in  $\text{\LaTeX}$  format. It provides general information on journal series and manuscript specifics and some comments on the technical usage of the packages template file. There is a section on style and layout conventions, and the manual itself is formatted according to the new pss layout, effective from January 2008, as an example. For information on the journals scope, the editorial policy regarding scientific content and peer review, and the submission and production process please see the “For authors” section on the journal series homepages.



Selected covers of pss (a), (b), and (c) as an example for the *optional* abstract figure (with or without caption). If there is no abstract figure here, the text should be divided into both columns.

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## 1 General

**1.1 Journal series and templates** physica status solidi comprises four journal series, all of which are dedicated to documenting the progress in solid state physics research. They differ with regard to their specialized scope and the journal production process (see Table 1). pss (a), (b), (c) and (RRL) use the same template for all article types. The pss templates are available in a  $\text{\LaTeX}$  (this) and a Microsoft Word<sup>®</sup> version (different download, preferred submission format). Original Papers in pss (a) and (b) have no length limit. For Contributed or Invited Articles in pss (c) please refer to specific information on the conference or project. pss (RRL) articles are restricted to a length of three pages, for details see [www.pss-rapid.com](http://www.pss-rapid.com). For manuscripts submitted to pss (RRL), (a) and (b), we

strongly recommend using a template to gain an accurate length estimate and control over the design. In these three journal series, accepted articles need not have their final arrangement and perfect layout, since they undergo full typesetting during the production process. In contrast, articles intended for one of the special projects published in **pss (c) must be prepared publication-ready in a template** according to the pss journal style conventions, fully formatted and arranged by the author.

**1.2 Formal manuscript requirements** Manuscripts must be written in correct English (British spelling preferred, American also possible, please be consistent) and submitted as one single pdf-file (including all text and figures etc.). Authors should structure their work in sections

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**Table 1** Overview of the pss journal series with regard to template use, journal production and submission policy.

pss series and scopes	Length restriction	Call for papers	Production processing	Pro-	Template use
pss (a) – applications and materials science	none, typically ten pages	regular submission: Original Papers; invited submissions: Past & Present, Feature and Review Articles	typesetting		strongly recommended
pss (b) – basic solid state physics					
pss (c) – current topics in solid state physics	according to specific project	Contributed and Invited Articles: special publication projects (i.e. conferences)	publication-ready		<b>mandatory</b>
pss (RRL) Rapid Research Letters	three pages	Rapid Research Letters: important results of immediate interest	typesetting		strongly recommended

using subheadings of their choice. Each manuscript should have the following components:

- a **title**, and preferably a suggestion for a short running title for the page header,
- the full list of **authors** (full names preferred, first and middle name initials also possible) with their affiliations (institution from smallest to largest unit, postal address including country),
- a footnote indicating the **corresponding author** including a valid e-mail address (telephone, fax, web-site optional; additional footnotes with other authors contacts possible),
- dates of receipt, receipt of the revised version and acceptance will be added by the publisher, as will logos, copyright lines, page headers and the coloured abstract background, please do not change them,
- up to six **PACS**<sup>®</sup> codes specifying the topic of the article. The Physics and Astronomy Classification Scheme<sup>®</sup> is a hierarchical subject catalogue maintained by the American Institute of Physics (See [www.aip.org/pacs](http://www.aip.org/pacs) for further information. This template package comes with the PACS<sup>®</sup> 2008 edition as a list in simple ASCII format. The most relevant categories for solid state physics are 60, 70, and 80. Remember that the system is structured by sections and subsections. For example, sub-headings codes ending with dot-minus-letter are followed by more specific sub-categories. Please be as precise as possible when selecting appropriate codes.),
- an **abstract** which concisely summarizes the reported study and results (optional: eye-catching abstract figure with or without brief caption in the right column; if there is no abstract figure, the abstract text should be divided into both columns),
- an **introduction** or motivation (aiming to set your results into their scientific context, outlining the progress achieved in the present study in comparison to information already available in the literature from the authors and other researchers work),
- a main part with sections devoted to the theoretical or experimental methods, results and discussion,

- conclusions** revisiting the main results and derived findings (keep in mind that the scope of the abstract is different from that of the conclusions),
- optionally **acknowledgements**,
- bibliographic **references**.

Authors may also add **supporting information** for online publication at Wiley InterScience to an article (tables, animations, movies etc.), provided that the manuscript remains a self-explanatory unit. Please send this material to the Editorial Office at [pss@wiley-vch.de](mailto:pss@wiley-vch.de), or on a CD-ROM if the amount of data is too large to be transferred by e-mail.

**2 Layout and style conventions** The pss standard layout and styles are implemented in the class file `wiley2sp.cls`. Most are automatically applied by the predefined template commands which are explained in Section 3. However, this section contains a brief explicit style reference.

**Section headings** come as in-line running heads in lower case letters except for proper nouns, certain abbreviations, physical quantities and the like. They should be consecutively numbered by decimal numbers as 1, 1.1, 2 etc., followed by a space and the heading text. After a further space the body text starts on the same line. Free-standing headings occur only in case of the first of two consecutive headings.

The **number format** uses a decimal point (not a comma) and scientific notation as in  $2.1 \times 10^4 \Omega$ , or alternatively  $0.21 \text{ m}\Omega$  (no notation like  $2.1\text{E-}4$ , also not in figures). For symbols and units, avoid writing alpha, Ohm, deg; use Greek and special characters instead:  $\alpha$ ,  $\Omega$ ,  $^\circ$ . All physical quantities and constants should be given in *italic*, vectors in ***bold italic*** letters (both in the text and in equations). Please distinguish carefully between subscripts, superscripts, and special symbols. Units (e.g. V/cm, K, Pa etc.) should be written in upright letters (not in italics) with a short space to the preceding digit. Please use SI units throughout. Mathematical functions which are tabulated (e.g. sin, cos, exp, e, etc.) should be given in upright letters (not in italics).

**Equations** may be numbered sequentially. Except for small in-line equations, they should appear on separate

lines, such as

$$E = E_0 + J \left( \nu - \frac{1}{2} \sum_{\delta} e^{-ik \cdot r_{\delta}} + e^{ik \cdot r_{\delta}} \right) \quad (1)$$

In the text, equations may be referred to by writing “... in Eq. (1)”. At the beginning of a sentence, use the full form “Equation (1) shows ...”. If you wish to deviate from the **standard fonts**, please still use Times New Roman, Times, Arial, Helvetica or math-mode greek fonts ( $\Sigma \Psi \mu \beta \omega \lambda$ ) as much as possible, since other fonts may cause conversion problems. Examples for obtaining slanted and upright greek letters can be found in the package files `w-greek.tex`. Do not change the font size or the `baselinestretch` or `-skip`.

**Figures and tables** can be one or two columns wide, have captions below, above, or to the side, and are preferably placed at the top or bottom of a page (see Section 3 and examples in `pss-demo.tex`). They are referenced in the text as “Table/Fig. 1”, or “Table/Figure 1” at the beginning of a sentence. Please limit the number of figures to maintain a reasonable relation to the amount of text.

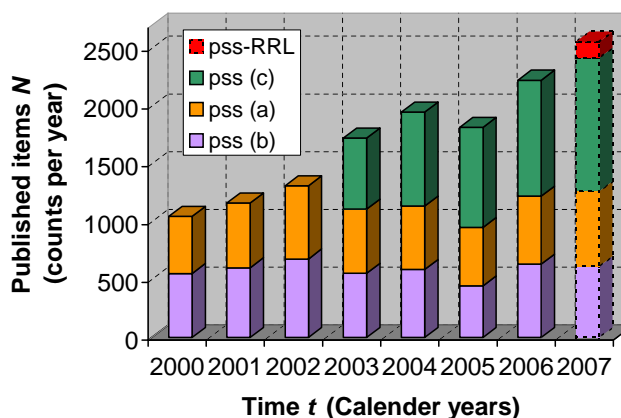
Figures must be carefully prepared production-ready. Lettering and symbols should be no less than 1.5 mm high. Please use sufficiently thick lines and avoid small open symbols, small dots, small decimal points, hairlines, close-dotted or short-dashed lines. Draw closed axes frames in diagrams, with the axes titles (quantity or symbol followed by the unit in brackets, like “Raman shift (cm<sup>-1</sup>)”) parallel to the corresponding axis, outside the frame.

Captions start with the number of the figure, spell out the plotted quantities by variable and full name, and end with a full stop. Remember to label each plotted data trace separately (see for example Fig. 1). Please use only standard fonts (Arial, Times New Roman, Symbol), or include the fonts in the figure file.

Halftone figures should have 300 dpi, line drawings 600 dpi minimum resolution. The resolution of screenshots is insufficient for print publication.

Colour figures will generally remain in colour in the internet pdf-version at no cost. The print version will be black/white unless colour figures are purchased by the authors using the colour print authorization on the Reprint Order form when returning proof corrections.

**References** should be numbered by order of appearance in the text, denoted in square brackets inside the sentence, such as [1], [1,2] or [1–3], and listed at the end of the manuscript, like the sample Refs. [1–6]. Please adhere to the journal’s reference scheme, which is: Author names, Journal title according to the INSPEC List of Journals abbreviations (in January 2009 our abbreviation changes from “phys. stat. sol.” to “Phys. Status Solidi”), followed by volume number in bold face, starting page, and year of publication in brackets [1,2]. For references to books see the examples [3–5]. When citing conference proceedings, please add all available data such as title, date, and place of the conference as well as publisher, place, and year of publication or, alternatively, the corresponding journal citation



**Figure 1** The plot shows the number of articles  $N$  published in pss versus time  $t$  in recent years. The colours refer to the four different journal series as indicated in the legend.

[6]. See Section 3.3 on how to achieve the correct formatting of your references using the pss-template’s BibTeX-style file.

**3 How to use the pss L<sup>A</sup>T<sub>E</sub>X template** To get started, copy the template’s files `wiley2sp.cls`, `w2sp-pss.clo`, `pss.bst`, and `w-greek.sty` to a place where L<sup>A</sup>T<sub>E</sub>X can find them (e.g. the working directory where your tex-file resides). The template also uses the auxiliary L<sup>A</sup>T<sub>E</sub>X styles `caption.sty`, `caption3.sty`, and `subfig.sty`. Most contemporary TeX installations should contain them, but if not, the styles are available from CTAN (Comprehensive TeX Archive Network) at [www.ctan.org/](http://www.ctan.org/). Take a look at the intended output in `pss-demo.pdf`. To get familiar, run the file `pss-demo.tex` through L<sup>A</sup>T<sub>E</sub>X (and possibly BibTeX) to create your own dvi-, ps-, or pdf-file. `pss-demo.tex` is a manuscript source file in which you can simply replace the dummy-text by your own input. The tex-source of this manual is included in the template package as an example. For technical details regarding the components, package use and installation of the pss-latex-template see also the readme-file of the template download.

The tex-file starts with the commands

```
\documentclass[pss]{wiley2sp}
\usepackage{amsmath}
% \usepackage{bm}
% \usepackage{w-greek}
\renewcommand{\arraystretch}{1.2}
\begin{document}
```

and always ends with

```
\end{document}.
```

Uncomment the `usepackage`-commands if you need greek-symbol functionality in math mode. There is no alternative

one-column review-style or manuscript-style option available in the class file to date, manuscripts are submitted in two-column format.

Sections and subsections are introduced by

```
\section{<Sectiontitle>}
\subsection{<Subsectiontitle>}
\subsubsection{<Subsubsectiontitle>}
\paragraph{<Paragraphtitle>}
```

and acknowledgements can be placed in between the body text and the bibliography by using

```
\begin{acknowledgement}
...
\end{acknowledgement} .
```

The **changed** environment is intended for **marking revised parts of text** in the manuscript:

```
\begin{changed}
...
\end{changed}.
```

Note that in certain circumstances there might be small side effects such as additional blanks.

**3.1 Frontmatter of the document** The following commands take up frontmatter information such as title, authors, affiliations and abstract, and generate the front page:

- `\title{}` for the full title of the article. Note that the title does not cover the full textwidth, the space to the right is reserved for the pss logo.
- `\titlerunning{}`: Please suggest a short title for the page headers.
- `\author{}`: Please list all authors in one instance of this environment, separated by comma, the last author by “, and”, and place footnote markers for different affiliations and for the corresponding author.
- `\authorrunning{}`: Usually the name of the first author followed by “et al.” for the page headers.
- `\mail{}`: For the corresponding author’s e-mail address and optionally phone and fax numbers or web sites.
- `\institute{}`: Takes the affiliations (addresses) of the authors, again place all in one instance of this command.
- `\received{}` and `\published{}` will be filled in by the publisher. Do not change them.
- `\pacs{}` Takes the PACS<sup>®</sup> codes as explained in Section 1.2.
- `\titlefigure[ ]{ }` and `\titlefigurecaption{ }` take the optional abstract figure (insert figure-file name without extension) and caption, which would be displayed in the right column of the abstract.
- `\abstract{abstcol{<col1> }{<col2>}}` takes the text for the two columns of the abstract in the respective arguments of `abstcol`. Balancing of column length is not automatic and there is always a paragraph break between them. However, if you choose

to add an abstract figure and caption, the text in both `abstcol`-arguments will automatically be shifted to the left column.

–`\maketitle` creates the title page after all necessary information has been processed.

**3.2 Including figures** The class file uses and requires the standard `graphicx` L<sup>A</sup>T<sub>E</sub>X package. See the ‘LaTeX standard graphics and color packages documentation’ at CTAN for more information (<http://tug.ctan.org/tex-archive/macros/latex/required/graphics/grfguide.pdf>).

Accepted figure file formats depend on which LaTeX flavour is used. Classic LaTeX is always able to use Encapsulated Postscript (eps); PDFLaTeX cannot use this but accepts pdf-, jpg-, png-, and gif-formats.

These commands include a one-column wide graphics file in a floating figure environment:

```
\begin{figure}[t]
\includegraphics[ ]{empty2h}
\caption{ ... }
\label{figurename}
\end{figure}
```

The options t, b, and h place the figure at the top, bottom, or here at the site of insertion, respectively. The optional parameters width and height can specify the size of the graphics file. The label can be used to reference the figure in the text. Appending a star (\*) as in `\begin{figure}` and `\end{figure}` will result in a two-column wide figure. If the graphics do not cover the entire page width and the caption should appear to the side instead of the bottom, add a line `\sidecaption` inside the figure environment.

**3.3 Making bibliographies using BibTeX and pss.bst** The example bibliography [1–6] at the end of this file is generated from the following code:

```
\begin{thebibliography}{[1]}
\bibitem{bib1}%
F.M. Firstauthorfamilyname,
F.M. Secondauthorfamilyname,
and C. Lastauthorfamilyname,
Abbreviatedjournalname \textbf{volume},
page (year).
\bibitem...
...
\end{thebibliography}
```

Optionally, you can generate your corresponding, fully formatted list of references using BibTeX, with the `bib-style-file pss.bst` from the template package in your L<sup>A</sup>T<sub>E</sub>X search path. To this end, replace the example database-file `pss-demo.bib` with your own existing one, or alternatively use it as a template for generating your new reference database. The following code in your manuscript source file enables BibTeX-functionality:

```
\bibliographystyle{pss}
\bibliography{<database-filename>}
```



You need to run your manuscript source file through BibTeX using the command

```
bibtex <filename>
```

(most  $\text{\TeX}$  frontends have a shortcut for this) and afterwards through  $\text{\LaTeX}$  twice, in order to get the correct label numbering.

**Important:** Before sending your manuscript source file to the publisher, remember to replace the BibTeX commands in your manuscript file by the actual bibliography in the BibTeX-generated file `<filename>.bb1`.

**4 Manuscript submission** Before submitting your manuscript please check that it contains all essential information listed in Section 1.2, is available in one single pdf-file including figures and tables, and meets the length restriction if applicable.

**4.1 Regular submissions to pss (a) and (b)** Please submit your manuscript electronically via our online submission system at [www.manuscriptXpress.com/osm](http://www.manuscriptXpress.com/osm). You may also submit to any of our Regional Editors by e-mail. For information on the submission and evaluation process as well as on the Editorial Board please refer to the journals homepages ([www.pss-a.com](http://www.pss-a.com), [www.pss-b.com](http://www.pss-b.com)). If you have any further questions or experience technical problems, please do not hesitate to contact us at [pss@wiley-vch.de](mailto:pss@wiley-vch.de).

**4.2 pss (c): special issues and conferences** For publication in pss (c) production will be based directly on your fully formatted, publication-ready file. No page proofs will be sent. Organisation and handling of submissions to conferences and special issues may vary. Please follow the specific information given by the event's organisers. Do not send your manuscript to the Editorial Office unless the organisers or Guest Editors have explicitly instructed contributors to do so. Further information is available in the "For authors" section at [www.pss-c.com](http://www.pss-c.com).

**Thank you** for taking the time to read these instructions. We wish you success with the manuscript preparation and look forward to your submission to pss.

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