

Information for Authors – CSGB Research Reports

Lars Madsen*

Version 1 – January 26, 2011

Introduction

Because of different publication traditions within the CSGB groups, the CSGB Research Reports will mostly contain material from mathematics and statistics, thus the material in this series is expected to be written in \LaTeX .

In order to get a publication series that has a consistent look, we have a few guidelines for authors to follow that will make our processing easier.

A \LaTeX template is provided. Below you will find some requirements and general tips.

Submission

All contributions should be sent to Oddbjørg Wethelund, `oddbjorg@imf.au.dk`.

The submission should include a PDF version of the article as well as the \LaTeX sources and any required support files (including figures) compressed as a ZIP archive.¹

Our technical staff will look through the submitted PDF. If there are (enough) items that ought to be changed (for the sake of layout consistency), the submitted sources will be edited accordingly. An updated PDF will be created and sent back to the corresponding author for approval.

When the article is accepted, any altered source codes will be returned to the corresponding author, often accompanied by tips for future articles.

Technical questions

If you have any technical questions about the publication series or about \LaTeX in general, feel free to send an email to CSGB technical support Lars Madsen, `daleif@imf.au.dk`.

* CSGB technical support, `daleif@imf.au.dk`

¹ In the same manner as you would submit to a journal.

Layout requirements

Font:	Use the standard Computer Modern font (or the lmodern package)
Paper size:	A4
Font size:	12pt
Margins:	3 cm, top, bottom, left and right
Line spacing:	normal document line spacing

Do not change paragraph indentation or the distance between paragraphs.

Page headers and footers

Leave the header empty, and place the page number centered in the footer.

First page (the title page)

Provide title, authors and affiliation information for all authors, plus an email address for at least the corresponding author.²

Do not display a date on the first page.

It is *required* to provide an abstract for the article. Note that the abstract will be reproduced on the web, thus

- (a) please keep the use of formulas and mathematical symbols to an absolute minimum, preferably writing the entire abstract as text only,
- (b) please do not use any cross references or citations within the abstract, these do not make sense when reproduced out of context.

Acknowledgements

An acknowledgement is required. It is usually placed just before the list of references.

The text should contain the following text

This research was supported by Centre for Stochastic Geometry and Advanced Bioimaging, funded by a grant from the Villum Foundation.

The author can supplement the text above with his or her extra acknowledgements.

Citations

In general we recommend the use of Bib_TE_X, enabling easy re-use of bibliographic information. Most journals support Bib_TE_X and provide information as to which styles to use.

We recommend the use of author-year styled references, though this is not a requirement.

Structure

A recommended structure for the article is something in the line of

Title material, Abstract, Main article contents, Appendices, Acknowledgements and References

² The template provide a convenient interface for adding affiliations.

Some comments for L^AT_EX

Simple comments

- Do not change the margins (or other layout lengths) or the fonts in the template.
- The template provide facilities to add author affiliations and keywords to the abstract.
- To format an URL, use the `\url` command, it will correctly hyphenate the URL if necessary.

About citations

The natbib package is automatically loaded in the template, this should be combined with the use of bibtex formatted bibliographic data.

If you choose to format the reference list by hand (i.e. manually filling in the thebibliography environment), you might want to out comment the following lines

```
\usepackage[round]{natbib}
% and at the end of the template
\bibliographystyle{plainnat} % or which ever style that suits you
\bibliography{csgb-bib-sample} % use your own file here
```

For those unfamiliar with natbib here is a short summary (for more details see the natbib manual):

<code>\cite{Baddeley:2005}</code>	→	Baddeley and Jensen (2005)
<code>\cite[page~25]{Baddeley:2005}</code>	→	(Baddeley and Jensen, 2005, page 25)
<code>\citet[page~25]{Baddeley:2005}</code>	→	Baddeley and Jensen (2005, page 25)
<code>\citep{Baddeley:2005}</code>	→	(Baddeley and Jensen, 2005)
<code>\cite{Gardi et al.:2006}</code>	→	Gardi et al. (2006)
<code>\cite*{Gardi et al.:2006}</code>	→	Gardi, Nyengaard, and Gundersen (2006)
<code>\citeauthor{Gardi et al.:2006}</code>	→	Gardi et al.
<code>\citeyear{Gardi et al.:2006}</code>	→	2006

Extra options to the natbib package can make it expand »*et al.*« references to the long version on the first citation, and the short version on the following ones.

Comments about math

Use the environments from the amsmath package, do *not* use the $\$$. . . \$$ or `eqnarray` constructions. A special package (onlyamsmath) is added to the template, any use of $\$$. . . \$$ or `eqnarray` will thus cause an error.³

The template loads the amsthm package which provides a few useful features:

`proof`

environment that should enclose every proof in the article. It will automatically add an open square at the right edge of the end of the proof.

Caveat: Do not use any blank lines in the source before `\end{proof}`, or the end-marker may be placed too low.

³ $\$$. . . \$$ is T_EX code and therefore do not comply to L^AT_EX configuration, and `eqnarray` contain several errors and layout inconsistencies, see <http://tug.org/pracjourn/2006-4/madsen/>

Tip: Some authors like to add an *end-of-proof* square at the end of, say, remarks. Using `amsthm` you can simply do this by manually ending the remark with the macro `\qed`, i.e.

```
blah blah. \qed
\end{remark}
```

Tip: When writing the proof of a theorem defined much earlier, the proof environment supports and extra argument:

```
\begin{proof}[Proof of Theorem~\ref{key}.] Blah blah ...
```

`\theoremstyle`

This command can be used to configure the look of the theorem-like constructions added after it. It takes one of these three values

`plain`

(the default), bold upright header, italic body

`definition`

bold upright header, upright body

`remark`

italic header, upright body

use these appropriately instead of manually adjusting each theorem etc. Thus

```
\theoremstyle{definition}
\newtheorem{example}[theorem]{Example}
```

will define an example environment, formatted with bold upright header and normal upright body. The environment is configured to share the numbering with the theorem environment (i.e. consecutive numbering).

`\newtheorem*`

Can be used to define unnumbered theorems, e.g.

```
\newtheorem*{maintheorem}{Main Theorem}
```

A few theorem constructions have already been defined in the template, add more if needed.

Units

The research covered by CSGB often deal with experiment results, thus the correct application of SI units will be an important issue.

In many publications authors do not correctly apply units. We recommend the use of the `siunitx` package. This package combines features from several older packages into one single package for formatting numbers, units and table columns.

So instead of writing »10 μm « write »\SI{10}{\micro\metre}« to get »10 μm «, note how the μ part is not that same as μ .

A common error is to write »\$2\times2\times2\$,m«, which is ambiguous (does »m« apply to all or not?), use »\SI{2x2x2}{\metre}« to get »2m \times 2m \times 2m«.

See the `siunitx` manual for more information, this also include various features for formatting table columns.

Other

The technical staff often use the following construction from the `mathtools` package

```
\begin{align*}
% note no & in the first line
\MoveEqLeft AAAAAAAAAAAAA \\\
&= BBBBBBBB\\
&= CCCCCCCC
\end{align*}
```

yielding

$$\begin{aligned} & AAAAAAAAAAAAA \\ &= BBBBBBBB \\ &= CCCCCCCC \end{aligned}$$

The `\MoveEqLeft` will *pull* the first line backwards, giving the illusion that the following lines are indented. If you align to the right of, say, an equality, use

```
\MoveEqLeft[3] A...\\
= {} & B...
```

`\MoveEqLeft` is similar to the `\lefteqn{\langle...\rangle}` command used within the `eqnarray` environment, but it do not take any required arguments.

The bibliography that follows just show the sample data provided along with the template.

Bibliography

Søren Asmussen. Stochastic simulation with a view towards stochastic processes. MaPhySto Lecture Notes 2, MaPhySto, University of Århus, Denmark, 1999.

Adrian Baddeley and Eva B. Vedel Jensen. *Stereology for statisticians*. Chapman & Hall/CRC, Boca Raton, FL, 2005.

Ole E. Barndorff-Nielsen. Probability and statistics; selfdecomposability, finance and turbulence. In L. Accardi and C. C. Heyde, editors, *Proceedings of the conference “Probability towards 2000” held at Columbia University, New York, 2-6 October 1995*, pages 47–57, Berlin, 1998. Springer.

Ole E. Barndorff-Nielsen, E. B. Vedel Jensen, K. Y. Jonsdottir, and J. Schmiegel. Spatio-temporal modelling – with a view to biological growth. Research Report 2004-12, T.N. Thiele Centre, 2005.

J. E. Gardi, J. R. Nyengaard, and H. J. G. Gundersen. Using biased image analysis for improving unbiased stereological number estimation – a pilot simulation study of the smooth fractionator. *J. Microsc.*, 222(3):242–250, 2006. Workshop on Variance Estimation in Stereology, Aarhus, Denmark, Nov. 22–26, 2004.