



To our English speaking
authors

**Mathematics: Contribution to an English Multi-Author Book
(Lecture Notes, Proceedings, and the like)**

13. May 1998

Dear author,

we are pleased to find that you will typeset your *contribution* with the help of our LaTeX2e class.

In the current directory you will find the following style files:

```
cl2emult.cls    % basic LaTeX2e class
cropmark.sty   % puts cropmarks on the first page of your contribution
sprmidx.sty    % supports the Springer layout style for indexes
subeqnar.sty   % enables sub-numbering of equations
math.sty       % additional parameter for specific style requirements
```

The packages “graphicx”, “multicol” and the program “makeidx” are also needed and should be part of every standard L^AT_EX installation – if this is not the case on your computer, you may copy them easily and in the latest version from the CTAN server (Address: <http://www.dante.de/cgi-bin/ctan-index>).

In addition please find the following sample files in the current directory:

```
author.tex      % sample input file of a contribution
figure.eps      % sample figure file
```

Please put the complete set of files in your “working directory” and start L^AT_EX2e – the sample T_EX files should run smoothly. I strongly suggest that you use the attached sample file for your own manuscript input or editing since many parameters have been fixed by us so as to facilitate the final text and page layout according to Springer standards:

1. Styles

- **math** : puts a frame around figure spaces
- **makeidx+sprmidx** : generates the index according to Springer layout
- **cropmark** : generates cropmarks on every first page of a chapter
- **multicol** : “balances out” 2 columns on last page of the index

2. Some additional *definitions* and *styles* (e.g. to produce an upright μ for micro...) and
3. All *commands* necessary for a smooth T_EX run.

Before you start the actual typesetting, I would like to draw your attention to some specific ways of writing (and coding) scientific text as is typical for Springer. Please try to adhere to these standards right from the start and please don't panic in view of the following number of pages – apart from explanation and comments the pages contain a lot of direct help as to their coding and execution (in L^AT_EX) and thus will hopefully facilitate your work.

Mathematics

Please set *mathematical expressions and formulae within the running text* in *mathmode*, i.e. $\$... \$$, so that the desired spaces are set automatically. In the text mode please put a fixed thin space \backslash , between a number and its unit.

Displayed formulae will automatically be *centered*. If you need to emphasize individual displayed formula you may put a simple box around it. Please don't use double border lines – this would just be over the top.

Equation arrays. In order to get a readable *layout* for your equation arrays we recommend that you use the L^AT_EX environment $\backslash\text{eqnarray}$. This will automatically use optimal line spaces and line breaks. In any case, put the equals sign generally at the beginning of a line; operators such as $+$, $-$, \times , etc. should also be at the beginning of the new line and should be indented to the right of the equals sign of the line above.

If you want to *sub-number* individual lines of your equation array you may use the enclosed style “subeqnar.sty” – the $\backslash\text{usepackage}$ command and corresponding definitions needed have already been set in the sample input file “author.tex”.

Please *punctuate* displayed equations in the same way as any other written statement and insert \backslash ; before the punctuation to supply a little extra space.

Vectors will by default appear boldface if correctly coded. Please use $\backslash\text{vec}\{v\}$ to depict the vector v .

Abbreviations, chemical symbols and formulae should be set upright.

Units (and their prefixes) should correspond to the SI standards and be put upright. In your T_EX input please use a small fixed space between a number and its unit. Please don't put units within angled brackets, instead use round brackets or, in case you need to depict two related units, either use a slash or write them as fraction. You can get an upright μ (for the prefix micro) with the commands $\backslash\text{umu}$ and $\backslash\text{smu}$ as defined in the root file. If you need other upright Greek letters you may define them yourself following the definition used for the upright μ .

Variables should be represented by a unique single character and always, i.e. in math mode as well as in the text, be set in italics. If possible please use $\backslash\text{varepsilon}$ for ϵ and $\backslash\text{varrho}$ for ρ .

Exponential terms with long exponents or with exponents containing subscripts or superscripts should be set with “exp(...)”.

Subscripts and Superscripts should always appear upright $\{\backslash\text{mathrm}\dots\}$ when they are abbreviations. If you need to depict a vector, please also use the syntax $\backslash\text{vec}\{\dots\}$. The font size will automatically be adjusted.

Fractions should be set with a slash (solidus) when they appear within exponents or narrow tables or in the running text. Otherwise the font size will be too small to be easily read.

Delimiters should be large enough to completely enclose their content – therefore we recommend using dynamic L^AT_EX input commands, e.g. `\left[` or `\right]`, `\langle` or `\rangle`, `\left|` and `\right|` etc.

Text layout

Headings and Their Paragraphs. Please use the following heading commands for the different hierarchies:

<code>\title*</code>	Title of your contribution (unnumbered)
<code>\section</code>	First level (numbered)
<code>\subsection</code>	Second level (numbered)
<code>\subsection*</code>	Third level (unnumbered)
<code>\subsubsection*</code>	Fourth level (unnumbered, text follows directly)

In English texts all words of a heading are capitalized *except for* articles (a, an, the), conjunctions and prepositions of up to 4 letters (e.g. on, of, at, to, by, and, or, but, from, with). If a heading needs more than one line please break the line at an appropriate place and put the binding word (conjunctions, prepositions, articles...) at the beginning of the new line. Last but not least please make sure that every heading is followed by at least a short passage of text in order to avoid a simple listing of different hierarchies.

If a special, maybe non-English, expression is used repeatedly, please adhere consistently to a single form of spelling.

Emphasized Text should simply be depicted in italics and should be limited to a selection of individual words. Emphasizing complete sentences should only be done in exceptional cases, e.g. when a law is presented.

Abbreviations. Please put abbreviations such as “e.g.,” “cf.” and “i.e.” upright. Only abbreviations that can be found in a dictionary may be used without definition. Particular terminology that is often abbreviated should be defined on first usage.

Dashes. In Springer books we differentiate between 3 different types of dashes which have to be coded individually:

(a) To produce a simple *hyphen*, used to connect or separate dependent parts of a word such as prefixes or in compound adjectives, please enter a single keyboard hyphen without any space either side (-).

(b) To produce a ‘*Springer em-dash*’ – e.g. to denote an insertion within a sentence – please enter two hyphens with a space on either side (_--_).

(c) To produce an *en-dash*, e.g. to stand in place of “to” in ranges, as in “Fig. 3a–c” or “... in the range 10–20 eV”, to stand in place of other words, as in “...the electron–photon interaction”, or to connect two names that are independent of each other such as “Hartree–Fock”, please enter two single hyphens with no space either side (--).

Quotation Marks. Please use the following commands to create English quotation marks:

`\lq_word`’ gives ‘word’ in the dvi file

`\lq_\lq_word`” gives “word” in the dvi file.

Page Break. Please see to it that you always have at least 2 lines of the same paragraph at the *foot or head of a page*. So-called “orphans or widows” reduce the readability of your text.

Cross-References Within Text. Cross-references to particular figures, tables, sections and so on (always followed by a number) should always be written *in full* when they stand *at the beginning* of a sentence, but in any other position within the text they should be abbreviated as follows:

(Figure) Fig./Figs.; (Chapter) Chap./Chaps.; (Page) p./pp.; (Section) Sect./Sects.; (Volume) Vol./Vols.

Exceptions:

(a) “Table” should always be written out in full – at the beginning of a sentence as well as within it.

(b) When referring to *equations* please don’t use the abbreviations “Eq./Eqs.” – it is sufficient to use the equation number set in round brackets e.g. (1.45). Only at the beginning of a sentence should you write “Equation (1.45)”.

(c) When citing *bibliographic references* simply use the reference number set in rectangular brackets e.g. [165], don’t use the abbreviations “Ref./Refs.” in the middle of text. Only at the beginning of a sentence should you write “Reference [165]”.

Figures/Tables and Their Captions

Figures. Please discuss the figures you intend to include in your contribution with the book editor. Whatever decisions are made about the type of figures you include, please take the following into account.

If you plan to produce your figures *electronically*, please make sure that in your 600 dpi printout the lines are not broken up and are of a constant width (0.5–0.75 pt). Grids and details within the figures must be clearly readable and may not be written one on top of the other. If you want to use a raster, please use a maximum of 300 dpi for the resolution.

If you want to include your figures electronically we recommend you use the “graphicx” package.

Tables. Please make sure that every table is *preceded by a heading*. The layout of your tables should not contain any vertical lines. The head of the table should not contain any extra lines. “Overwide” tables should be reduced to the normal page width, or if this is not possible, should not exceed the page width by more than 5 mm.

Captions.

1. Should a figure consist of several parts, please set the names of the parts boldface within round brackets inside the caption, e.g. **Fig.1.1.** general explanation (a) individual description (b)...
2. Should you want to explain special line formats etc. used in the figure, then please set their description in italics within round brackets, e.g. **Fig.1.1.** In the upper edge you find x,y,z (*dashed line*)...
3. Don’t put a full stop at the end of the last sentence of a caption.

References

When producing your bibliography please make sure that the data is *complete* (name, initial, year of publication, book title and title of series, publisher's name and place, or journal name, volume number, pages numbers) and *up-to-date* (edition number). The layout should be consistent, i.e. you should always follow the same structure and use the same font for the individual elements.

Please make sure that in the individual reference citations the initials of names don't stand alone. Please connect them to their surname with the help of the T_EX tilde “~” so that they will not be separated from each other when T_EX breaks the line. The same applies to volume or page numbers: please see to it that individual numbers out of a complete row do not stand alone in a separate line.

In the following, you will find some examples of a possible layout for different types of literature (independent of whether the listing is in numerical or alphabetical order):

Monographs

Jirgensons B. (1984) *Optical Activity for Proteins and Other Macro-Molecules*, 2nd edn. Springer, New York
Müller M., Becker F.J. (1930) *On Generalized Hamiltonian Dynamics*. Cambridge University Press, Cambridge

Proceedings

Greiner W., Poenaru D.N. (1995) Cluster Preformation in Closed- and Mid-shell Nuclei. In: Anagnostatos G.S., von Oertzen W. (Eds.) *Atomic and Nuclear Clusters*, 2nd International Conference at Santorini, Greece, June 28–July 2, 1993. Springer, Heidelberg, 264–265
MacKay D.M. (1973) Visual Stability and Voluntary Eye Movements. In: Jung R. (Ed.) *Handbook of Sensory Physiology VII/3*. Springer, Berlin Heidelberg, 307–331

Journals

Burbeck C.A. (1986) Negative Afterimages and Photopic Luminance Adaptation in Human Vision. *J Opt Soc Am* 3:1159
Rentschler I., Hilz R. (1976) Evidence for Disinhibition in Line Detectors. *Vision Res* 16:1299–1302

Theses

Ross D.W. (1977) *Lysosomes and Storage Diseases*. MA Thesis, Columbia University, New York

Index. Please make sure that you have coded your entries for the book's subject index before submitting the T_EX files of your contribution to the editor. Otherwise it will take quite a while for the entries to be selected afterwards.

As soon as you have finished your contribution please contact the volume editor of the planned book. To start with, he or she will presumably need a PS file and/or printout of your contribution for evaluation. After you have carried out all necessary corrections the complete set of T_EX and figure files as well as your individual extra definitions and styles will be needed for a successful compilation of the complete book. (Please reduce your own definitions and macros to an absolute minimum since otherwise it will become rather strenuous to compile all individual authors' contributions to a mutual book file).

Should you have queries or need support concerning the *content or contract* side of your book project please contact the *editor* of the planned book.

Should you have queries or need our support concerning the *layout*, L^AT_EX coding, figures etc. you may of course contact the production editor responsible for your book directly , or

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Please always mention the name(s) of the volume editor(s) and the title of the book so that we can easily identify the corresponding project files.

Yours sincerely,

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