## Central European Journal of Physics

# Paper writing guide for LaTeX users

Editorial

First Author<sup>12\*</sup>, Second Author<sup>1</sup>, Third Author<sup>23†</sup>

- 1 First institution, address, ZIP-code City, Country
- 2 Second institution, address, ZIP-code City, Country
- 3 Third institution, address, ZIP-code City, Country

**Abstract:** Please type your abstract here. **PACS (2008):** 01.30.-y, 01.30.Xx, 01.30.Tt

 $\textbf{Keywords:} \qquad \text{physics literature and publications} \bullet \ \ \text{publications in electronic media} \bullet \ \ \text{bibliographies}$ 

© Versita sp. z o.o.

## 1. Introduction

Please read these instructions carefully before preparing a manuscript for submission, and to check the manuscript for conformance before submitting it for publication. The length and effectiveness of the peer review process will largely depend upon the care used by authors in preparing their manuscripts. If you have any questions, please contact the Managing Editor (Dr. Krzysztof Malarz) at kmalarz@versita.com. The cej.cls document class dedicated to preparing document for the CEJP is freely available at http://versita.com/wp-content/uploads/2010/08/template1.zip. We strongly encourage authors to use this class for manuscript preparation.

## 2. Paper elements

Papers submitted to CEJP should contain:

1. title page with:

 $* \ E-mail: \ email@first.author.edu$ 

 $<sup>^{\</sup>dagger}$  E-mail: email@third.author.edu

- (a) title (short title),
- (b) full name(s) of author(s),
- (c) name and address of workplace(s),
- (d) personal e-mail address(es),
- 2. abstract,
- 3. up-to five keywords,
- 4. up-to five PACS code numbers,
- 5. text,
- 6. reference lists.

Each of these elements is detailed below.

## 2.1. Title (short title)

We suggest the title should be relatively short but informative. If a long title is necessary, please prepare an optional short title.

cej.cls document class allows to introduce title with \title{Put title of your presentation here} command in document preamble.

## 2.2. Name(s) of author(s)

A list of all authors of the paper should be prepared. We need full first name, initial(s) for middle name(s) and full last name. Use

```
\verb|\author{First~author$\setminus inst{1}\in {2}\email{email@first.author.com}|,
```

Second author \inst{1},

Third~author\inst{2}\inst{3}\email{email@third.author.com}}

## 2.3. Name and address of workplace(s)

Authors' affiliations should be indicated in this section. Either end-note or footnote (end-note recommended) can be used to present additional information (for example: permanent, adequate postal addresses).

## 2.4. Personal e-mail address(es)

At least one e-mail address is needed. It will be used as the corresponding author's email address in all contacts with the authors. See \author{...} how to add your e-mail address.

#### 2.5. Abstract

An abstract must accompany every article. It should be a brief summary of the significant items of the main paper. An abstract should give concise information about the content of the core idea of your paper. It should be informative and not only present the general scope of the paper but also indicate the main results and conclusions. An abstract should not normally exceed 200 words. It should not contain literature citations or allusions to the tables or illustrations. All non-standard symbols and abbreviations should be defined.

In combination with the title and key-words, the abstract is an indicator of the content of the paper. Authors should remember that on-line systems rely heavily on the content of titles and abstracts to identify articles in electronic bibliographic databases and search engines. They are therefore requested to take great care in preparing these elements.

Use \abstract{...} in order to include abstract of your manuscript.

## 2.6. Article type

Use \articletype{...} to indicate article category, *i.e.*: regular research articles, rapid communications, communications and review papers.

## 2.7. Keywords

A list of keywords, proposed by authors, separated by \\*\ is required. Up to five keywords is suggested.

Use \keywords{key word 1 \\*\ key word 2 \\*\ key word 3} to add your keywords.

## 2.8. Code numbers (PACS)

A list of Physics and Astronomy Classification Scheme (PACS 2008) numbers, separated by commas or semi-colons is required. Up to five codes is suggested. Authors are fully responsible for correctness of chosen codes: \pacs{01.30.-y, 01.30.Xx, 01.30.Tt}. The PACS 2008 classification scheme is available at our paper processing system in "Classification" section.

#### 2.9. Text

## 2.9.1. General rules for writing

- use simple and declarative sentences, avoid long sentences, in which the meaning may be lost by complicated construction;
- ullet be concise, avoid idle words;
- make your argumentation complete; use commonly understood terms; define all non-standard symbols and abbreviations when you introduce them;
- explain all acronyms and abbreviations when they first appear in the text;

- use all units consistently throughout the article;
- be self-critical as you review your drafts.

#### 2.9.2. Structure of a paper

Research papers and review articles should follow a strict structure. Generally a standard scientific paper is divided into:

- introduction: you present the subject of your paper clearly, you indicate the scope of the subject, you present the goals of your paper and finally the organization of your paper;
- main text: you present all important elements of your scientific message;
- conclusion: you summarize your paper.

Experimental part and/or calculations should be presented in sufficient details to enable reader to repeat the original work.

Use \section{...}, \subsection{...}, \paragraph{...} to organize your manuscript.

#### 2.9.3. Footnotes/End-notes/Acknowledgments

We encourage authors to restrict the use of footnotes. If necessary, please make end-notes rather than footnotes. Allowable footnotes/end-notes may include:

- the designation of the corresponding author of the paper;
- the current address of an author (if different from that shown in the affiliation);
- traditional footnote content.

Information concerning research grant support should appear in a separate Acknowledgment section (\section\*{Acknowledgments}) at the end of the paper, not in a footnote. Acknowledgments of the assistance of colleagues or similar notes of appreciation should also appear in an Acknowledgments section, not in footnotes.

#### 2.9.4. Tables

Authors should use tables only to achieve concise presentation, or where the information cannot be given satisfactorily in other ways. Tables should be numbered consecutively using Arabic numerals and referred to in the text by number. Each table should have an explanatory caption which should be as concise as possible. Use  $\label{XXX}$  and  $\ref{XXX}$  combination to refer to Tables 1, 2.

```
\begin{table}
\caption{A table caption.\label{tab1}}
```

\begin{tabular}{lcc}

\hline

Table 1. A table caption should be put above the table.

	1st column	2nd column
1st row	$a_{11}$	$a_{12}$
2nd row	$a_{21}$	$a_{22}$

Table 2. A table caption of Tab. 2.

	1st column	2nd column
1st row	$b_{11}$	$b_{12}$
2nd row	$b_{21}$	$b_{22}$

```
\hline \hline

1st row & $a_{11}$ & $a_{12}$ \\

2nd row & $a_{21}$ & $a_{22}$ \\

\hline
```

& 1st column & 2nd column \\

\end{tabular}

\end{table}

#### **2.9.5.** Figures

Authors may use line diagrams and photographs to illustrate theses from their text. The figures should be clear, easy to read and of good quality. Styles and fonts should match those in the main body of the article. All figures must be mentioned in the text in consecutive order and be numbered with Arabic numerals. Use \label{XXX} and \ref{XXX} combination to refer to Figures 1, 2.

## \begin{figure}

Table 3. Standard mathematical symbols.

symbol	LAT <sub>E</sub> Xsource	description
$\propto$	\propto	proportional to
=	\equiv	equivalent to
$\approx$	\approx	approximately equal
$\sim$	\sim	asymptotically equal to, similar to
$\rightarrow$	\to	tends to
$c^*$	c^*	complex conjugate of c
$\mathbf{A}^{\dagger}$	$\mbox{mathbf{A}^{\alpha}}$	Hermitian conjugate of matrix A
$\mathbf{A}^T$	$\mbox{mathbf{A}^T}$	transpose of matrix A
$\langle \rangle$	\langle \rangle	average
μ	\textmu	micro
%	\%	percent
‰	\textperthousand	per-thousand
۰	\textdegree	degree (angle and/or temperature)

# Figure 1

Figure 1. A figure caption should be placed below the figure.

Figure 2

Figure 2. A figure caption for Fig. 2.

\includegrpahics[width=0.7\textwidth]{file}

\caption{A figure caption.\label{fig1}}

\end{figure}

#### 2.9.6. Typesetting

Type main text in roman (upright) font. The chemical symbols and compounds, units of measure, most multiletter operators and functions should are written in roman upright as well. The variables, constants, symbols for particles, most single-letter operators, axes and planes, channels, types (e.g., n, p), bands, geometric points, angles, lines, chemical prefixes, symmetry designations, transitions, critical points, color centers, quantum-state symbols in spectroscopy, and most single-letter abbreviations should be written in roman italic. Boldface roman type is reserved for indicating vectors and in some special cases matrices. The Latin terms: et al., in vivo, in vitro, ex vivo, in situ, in silico, etc, de novo, a priori, ab initio, vice versa, ad hoc, sensu stricte, versus, via, i.e., c.a., per se must be written in roman italic.

Use \begin{proposition} [Pitagoras-Einstein] ...\end{proposition} for proposition environment

Proposition 2.1 (Pitagoras-Einstein). 
$$E = m(a^2 + b^2)$$
.

Use \begin{remark} ...\end{remark} for remark environment

Remark 2.1.

Remark one.

Remark 2.2.

Remark two.

 $\begin{theorem}{\tt Einstein]} \ ... \verb| hed{theorem} \ for \ theorem \ environment \\$ 

Theorem 2.1 (Pitagoras-Einstein).

$$E = m(a^2 + b^2). (1)$$

Use \begin{proof} ... \end{proof} for proof environment. The proof environment will be automatically finished with quad erat demostrandum sign.

Proof.

$$E = mc^2$$

$$a^2 + b^2 = c^2$$

$$E = m(a^2 + b^2).$$

#### 2.9.7. Mathematical symbols

The multiplication signs are reserved for a vector product  $(\mathbf{A} \times \mathbf{B})$  and simple dot product  $(\mathbf{A} \cdot \mathbf{B})$ . The only exception are numbers expressed in scientific notation  $(9.7 \times 10^3 \text{ MeV})$ . The use of standard symbols presented in Table 3 is strongly recommended.

#### 2.9.8. Units

Units and dimensions should be expressed according to the metric system and SI units. This system is based on: meter (m), second (s), kilogram (kg), ampere (A), kelvin (K), mole (mol), and candela (cd). Most units are spaced off from the number, e.g. 12 mV. The only exceptions are:

Decimal multiples or sub-multiples of units are indicated by the use of prefixes

$$\mu=10^{-6}$$
,  $m=10^{-3}$ ,  $c=10^{-2}$ ,  $d=10^{-1}$ ,  $da=10^{1}$ ,  $h=10^{2}$ ,  $k=10^{3}$ ,  $M=10^{6}$ ,  $G=10^{9}$ , etc.

Compound units are written as

$$4221.9 \text{ J kg}^{-1} \text{ K}^{-1} \text{ or } 4221.9 \text{ J/(kg K)},$$

with a thin space between unit parts.

Authors should indicate precisely in the main text where tables and figures should be inserted, if these elements are given at the end in the original version of the manuscript (or supplied in separate files). If this information is not provided along with the manuscript, we will assume that the figures and/or tables should be insert at the closest position to first reference to them in the published paper.

#### 2.9.9. Multimedia and images

Authors can attach files in most popular formats, including (for example):

- images in BMP, GIF, JPEG formats,
- multimedia files in MPEG or AVI formats.

However please keep to file types that are read by standard media players (e.g. RealPlayer, Quicktime, Windows Media Player) and/or standard office applications (Adobe Acrobat Reader, Microsoft Office etc.).

Your attachments may be accessible through links to external locations or to our internal locations (if you choose the second option, please remember to send us your attachments).

Please remember that your images, video and animation clips are intended for Internet use and we need to consider the needs of users with slow Internet connections. Please try to minimize file sizes by using a lower resolution or number of colors for images and animations (as long as the material is still clear). To help you in formatting your images (including tables and figures) or multimedia files, please submit your paper with separate attachments, which are used in your paper.

#### 2.9.10. English language

Central European Journal of Physics is published only in English. Make sure that your manuscripts are clearly and grammatically written. Please note that authors who are not native-speakers of English can be provided with help in rewriting their contribution in correct English. Try to prepare your manuscript in an easily readable style; this will help avoid severe misunderstandings which might lead to rejection of the paper.

#### 2.10. Reference list

A complete reference should give the reader enough information to find the relevant article. All authors (unless there are six or more) should be named in the citation. If there are six or more, list the name of the first one followed by "et al". Please pay particular attention to spelling, capitalization and punctuation here. Completeness of references is the responsibility of the authors. A complete reference should comprise the following:

## 2.10.1. Reference to an article in a journal

Elements to cite: Author's Initials. Surname, – if more authors, see examples below, Title of journal – abbreviated according to the ISI standards<sup>1</sup>, volume number, page or article number (year of publication). Please supply DOI or URL for e-version of the papers. See Refs. [1–8] for example.

 $<sup>^{1}\</sup> http://images.isiknowledge.com/WOK46/help/WOS/0-9\_abrvjt.html$ 

#### 2.10.2. Reference to a book

Elements to cite: Author's Initials. Surname, Title, Edition – if not the first (Publisher, Place of publication, Year of publication) [9].

#### 2.10.3. Reference to a part/chapter book

Elements to cite: Author's Initials. Surname, In: Editor's Initials. Editor's Surname (Ed.), Book Title, Edition – if not the first, (Publisher, Place of publication, Year of publication) page number [10].

#### 2.10.4. Reference to a preprint

Elements to cite: Author's Initials. Surname, arXiv:preprint-number and version [11, 12].

#### 2.10.5. Reference to a conference proceedings

Elements to cite: Author's Initials. Surname, In: Editor's Initials. Editor's Surname (Ed.), Conference, date, place (town and country) of conference (Publisher, place of publication, year of publication) page number [13].

#### 2.10.6. Reference to a thesis

Elements to cite: Author's Initials. Surname, D.Sc./Ph.D./M.Sc./B.Sc. thesis, University, (town, country, year of publication) [14].

#### 2.10.7. Reference to an article in a newspaper

Elements to cite: Author's Initials. Surname, Newspaper Title, date of publication, page number [15, 16].

#### 2.10.8. Reference to a patent

Elements to cite: Originator, Series designation which may include full date [17].

#### 2.10.9. Reference to a standard

Elements to cite: Standard symbol and number, Title [18, 19].

Please add language of publication for materials which are not written in English. Indicate materials accepting for publications by adding "(in press)". Please avoid references to unpublished materials, private communication and web pages.

You should make sure the information is correct so that the linking reference service may link abstracts electronically. For the same reason please separate each reference from the others.

Before submitting your article, please ensure you have checked your paper for any relevant references you may have missed.

## 2.11. Submission formats

Manuscripts for CEJP must be submitted in the LaTeX format with figures in EPS, PDF or PNG format. Authors are strongly encouraged to register their manuscript in arXiv preprint server and submit it to our Editorial Manager using arXiv's paper ID.

## 2.12. Supplementary data

You can also submit any supplementary data files as well. These may include long tables (in HTML or plain TXT format) or movies (preferably in AVI format).

#### References

- [1] A. P. Raposo, H. J. Weber, D. E. Alvarez-Castillo, M. Kirchbach, Cent. Eur. J. Phys. 5, 253 (2007)
- [2] J. Barth et al. (SAPHIR Collaboration), Phys. Lett. B 572, 127 (2003)
- [3] S. Chekanov et al., Eur. Phys. J. C 51, 289 (2007)
- [4] K. Malarz, Postepy Fizyki 57, 235 (2006) (in Polish)
- [5] G. Meng, Cent. Eur. J. Phys., DOI:10.2478/s11534-007-0038-1
- [6] R. Hegselmann, U. Krause, Journal of Artificial Societies and Social Simulation (2006), http://jasss.soc.surrey.ac.uk/9/3/10.html
- [7] A. Dybala, Cent. Eur. J. Chem. (in press)
- [8] A. Dybala, Przeglad chemiczny (in Polish, in press)
- [9] M. Lister, Fundamentals of Operating Systems, 3rd edition (Springer-Verlag, New York, 1984)
- [10] C. K. Clenshaw, K. Lord, In: B. K. P. Scaife (Ed.), Studies in Numerical Analysis (Academic Press, London and New York, 1974) 95
- [11] M. Majewski, K. Malarz, arXiv:cond-mat/0609635v2 [cond-mat.stat-mech]
- [12] J. A. C. E. Solano, arXiv:0707.1343v1 [astro-ph]
- [13] A. Kaczanowski, K. Malarz, K. Kulakowski, In: T. E. Simos (Ed.), International Conference of Computational Methods in Science and Engineering, Sep. 12-16, 2003, Kastoria, Greece (World Scientific, Singapore 2003) 258
- [14] A. J. Agutter, Ph.D. thesis, Edinburgh University (Edinburgh, UK, 1995)
- [15] A. Sherwin, The Times, Jul. 13, 2007, 1
- [16] M. Dzierzanowski, Wprost, Jul. 8, 2007, 18 (in Polish)
- [17] Philip Morris Inc., European patent application 0021165 A1, Jan. 7, 1981
- [18] ISO 2108:1992, Information and documentation International standard book numbering (ISBN)
- [19] ISO/TR 9544:1988, Information processing Computer-assisted publishing Vocabulary