

PREPARED FOR SUBMISSION TO JINST

JINST: L^AT_EX author's manual

JINST Editorial Office

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ABSTRACT: This document provides instructions for using the `jinstpub.sty` L^AT_EX package along with some stylistic conventions. For a brief example that can be used as a template/boilerplate please see the file `example.tar.gz` available in the [documentation](#) archive.

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1 The JINST style package `jinstpub.sty`

`jinstpub.sty` is a \LaTeX package that is designed to help authors produce preprints in a form suitable for submission to JINST.

This package should be used with the `article` documentclass and `11pt,a4paper` options:

```
\documentclass[11pt,a4paper]{article}
\usepackage{jinstpub}
```

Some useful packages are already included in `jinstpub.sty`: `hyperref`, `graphicx`, `amsmath`, `amssymb`, `natbib` (options: `numbers`, `sort&compress`).

NB: please note that a recent \LaTeX distribution is required.

2 Title page

The title page is created by the command `\maketitle` and can accommodate many details that are collected by specific macros (see figure 1).

The following sections explain the macros that may be used.

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An example title where $x = 1$

A. Author,^a B. Author^{a,b,1} and C. Author^{a,c}

^a *Institution,
Street number, City, Country*

^b *Department, University,
Street number, City, Country*

^c *Another University,
Street number, City, Country*

E-mail: buthor@univ.country

ABSTRACT: Text, text *math*, *math* text, text.
Text, text *math*, *math* text, text...

KEYWORDS: keyword one, keyword two

¹Corresponding author.

```

\title{An example title where \boldmath $x=1$}

\author[a]{A.~Author,}
\author[a,b,1]{B.~Author%
\note{Corresponding author.}}
\author[a,c]{and C.~Author}

\affiliation[a]{Institution,\
Street number, City, Country}
\affiliation[b]{Department, University,\
Street number, City, Country}
\affiliation[c]{Another University,\
Street number, City, Country}

\emailAdd{buthor@univ.country}

\abstract{Text, text $math$, $math$ text, text.
Text, text $math$, $math$ text, text... }

\keywords{keyword one, keyword two}

\begin{document}
\maketitle

```

Figure 1. An example of the JINST title page with the most common information (left), and the corresponding source code (right).

2.1 Title

The title of your paper can be specified using the macro `\title{...}`.

If it contains any mathematics, then the command `\boldmath` should be placed inside the argument of the title.

Only the first letter, acronyms and a persons’ name are capitalized. Also, the full stop is not needed at the end of the title, unless it is followed by “Part 1” or “Part 2” (e.g. “An example title. Part 1”).

2.2 Authors and affiliations

All authors should appear on the title page together with their affiliation(s). The firstname of each author should be abbreviate to the initials only.

Authors and affiliations can be specified using the macros `\author[]{...}` and `\affiliation[]{...}`, one for each author/affiliation (see the example of figure 1).

The author name is specified within the curly brackets, while the purpose of the optional argument is to link authors and affiliations:

<p>F. Author,^a B. Author^{a,b} and C. Author^b</p> <p>^a<i>Institution, Street number, City, Country</i></p> <p>^b<i>Department, University, Street number, City, Country</i></p>

```

\author[a]{A.~Author,}
\author[a,b]{B.~Author}
\author[b]{and C.~Author}

\affiliation[a]{Institution,\
Street number, City, Country}
\affiliation[b]{Department, University,\
Street number, City, Country}

```

When all the authors share the same affiliation(s), there is no need to identify them with letters:

<p>A. Author, B. Author and C. Author</p> <p><i>Institution, Street number, City, Country Department, University, Street number, City, Country</i></p>

```

\author{A.~Author,}
\author{B.~Author}
\author{and C.~Author}

\affiliation{Institution,\
Street number, City, Country}
\affiliation{Department, University,\
Street number, City, Country}

```

Footnote for the author. The macro `\note{...}` can be used inside `\author` to specify a footnote for that author. Its numerical identification has to be manually specified inside the square brackets of all the authors sharing that note.

<p>A. Author,^{a,1} B. Author^{a,b,1} and C. Author^b</p> <p>^a<i>Institution, Street number, City, Country</i></p> <p>^b<i>Department, University, Street number, City, Country</i></p> <p>...</p> <hr/> <p>¹Note shared by two authors.</p>

```

\author[a,1]{A.~Author,%
\note{Note shared by two authors.}}
\author[a,b,1]{B.~Author}
\author[b]{and C.~Author}

\affiliation[a]{Institution,\
Street number, City, Country}
\affiliation[b]{Department, University,\
Street number, City, Country}

```

2.3 E-mails

Only the email address of the corresponding author appears on the first page. This email can be specified using the macro `\emailAdd{...}`. If the email address contains an underscore, then it needs to be escaped with a backslash (`\emailAdd{name_surname@domain.com}`).

2.4 Abstract

The abstract of the paper can be specified inside the macro `\abstract{...}`. We strongly discourage having citations in the abstract.

2.5 Keywords

The keywords of your paper can be specified inside the macro `\keywords{...}`.

Please note that the keywords that will appear on the published paper are those that you choose during submission, not necessarily the one you provide in the tex source.

2.6 Additional information in the title page

The following additional information can be specified in the title page:

ArXiv number. You can provide the arXiv identification number of your paper by using the macro `\arxivnumber{...}`.


Subheader. If your article is an invited review, you can specify the type of your manuscript as a subtitle using the macro `\subheader{...}`.

REVIEW An example title <hr/>	<code>\subheader{Review}</code> <code>\title{An example title}</code>
-------------------------------------------------------	------------------------------------------------------------------------------

Collaboration. If the authors are part of a collaboration, the name of the collaboration can be specified in the macro `\collaboration{...}`.

An example title <hr/>	<code>\title{An example title}</code>
XXX collaboration	<code>\collaboration{XXX collaboration}</code>
A. Author, B. Author and C. Author	<code>\author{A.~Author,}</code> <code>\author{B.~Author}</code> <code>\author{and C.~Author}</code>

If your collaboration has a logo, you can specify it as follows:

An example title <hr/>	<code>\title{...}</code>
	<code>\collaboration{%</code> <code>\includegraphics[height=17mm]{logo.png}\\[6pt]</code> <code>XXX collaboration}</code>
XXX collaboration	
A. Author, B. Author and C. Author	<code>\author{...}</code>

If you write on behalf of a collaboration, you can try as follows:

An example title <hr/>	<code>\title{...}</code>
A. Author, B. Author and C. Author on behalf of XXX collaboration	<code>\collaboration[c]{on behalf of</code> <code>XXX collaboration}</code> <code>\author{...}</code>

Dedication. If you want to dedicate your paper, the macro `\dedicated{...}` will place the dedication in the bottom right part of the title page.

KEYWORDS: keyword one, keyword two ARXIV EPRINT: 1234.56789 <i>Dedicated to if you want.</i>

```
\dedicated{Dedicated to\ldots \\  
\ldots if you want.}
```

3 Table of contents

The table of contents is generated by the command `\maketitle` and placed after the title page.

You can suppress the table of contents with the command `\notoc` in the document preamble (i.e. before `\begin{document}`).

If you don't want the table of contents to start on a new page, use the command `\toccontinuoustrue`.¹

4 Body of the paper

4.1 General conventions

The command `\flushbottom` is used immediately after `\maketitle` to make the text fill the height of the page.

Sections and non-numbered sections. The text of a manuscript is usually divided into sections using the standard sectioning macros. Titled paragraphs (e.g. `\paragraph{Title for the paragraph.}`) are preferred over non-numbered sections.

Usually only the first letter, acronyms and a persons' name are capitalized in the section title.

Parenthesis and capitals. Parentheses in the text should always be round (like this), and should not contain extra spaces: [this is wrong].

Capitals should be used only after full stops and not after colon, semicolon or parenthesis.

Dashes. There are four types of dashes.

1. The minus sign (-2) (`\TeX: $-$`).
2. The hyphen connecting compounds (Kaluza-Klein, type-II) (`\TeX: -`).
3. The en-dash describes a range (september 1–10, 1999) (`\TeX: --`).
4. The em-dash — used for clauses — should be surrounded by spaces (`\TeX: ---`).

Emphasized text. Word or sentences within the text should preferably be emphasized using `\emph{}`. The use of **boldface** is discouraged.

¹If you need more space before the table of contents when using this command, you can use:
`\renewcommand{\beforetoohook}{\bigskip\bigskip}`.

Abbreviations. Figures, tables, appendices and sections are not abbreviated. Equations and references may be abbreviated as: “eq. (eqs.)”, “ref. (refs.)”.

Latin abbreviations (“et al.”, “e.g.”, “i.e.”, ...) should be written without emphasis (i.e. in roman characters).

The following should be avoided: fig.(2), sec(II), appendix (A), *et.al.*, *e.g.*, eqn. 1.2.

The following are correct: figure 2, section 2, appendix A, et al., e.g., eq. (1.2).

Footnotes. Footnotes should always be placed after the punctuation mark.²

They should begin with a capital letter and end with a full stop.

Acknowledgments. The command `\acknowledgments` starts a new non-numbered section where the acknowledgments can be placed. It usually resides before the bibliography, or at the end of the introduction.

Appendices. Appendices should have a proper title different from “Appendix A, B...”.

To start the appendices’ section, the command `\appendix` will set the correct alphabetic numbering for sections and equations.

other text.	other text.
A First appendix	<code>\appendix</code>
	<code>\section{First appendix}</code>
A.1 Subsection	<code>\subsection{Subsection}</code>
Text text text text text.	Text text text text text.
B Second appendix	<code>\section{Second appendix}</code>
Text text text text text.	Text text text text text.

Cross referencing. To easily reference sections, figures, tables, etc. throughout your paper, please use the commands `\label{marker}` and `\ref{marker}`. Labeled equations can also be cited using the command `\eqref{marker}`.

4.2 Mathematics

Equations are numbered consecutively in the manuscript according to the section: (1.1), (1.2), ..., (A.1), (A.2), ...

Some conventions are adopted:

- Parenthesis surrounding fractions should be big enough for their contents

$$\mu_B^j = \left(\frac{1}{Q}\right) w_\alpha^j \eta_B^\alpha,$$

²Like this.

- Multiple equations should be aligned on the equal signs when possible (or on \geq , \sim , \leftrightarrow , etc.)

$$\mu_B^j = \frac{1}{Q} w_\alpha^j \eta_B^\alpha,$$

$$\bar{w}_j^\alpha \bar{\mu}_j^B = \frac{1}{Q} \bar{\eta}_\alpha^B.$$

The same alignment rule holds for equations continued on multiple lines,

$$J = \frac{1}{2} P \gamma \pi [\gamma(\gamma^2 + 1) \{(\alpha^2 + \beta^2)^2 - 2(\alpha^2 - \beta^2) + 1\}] \times$$

$$\times \left\{ (\alpha + \beta) \{(\alpha^2 + \beta^2)^2 + 2\gamma^2(\alpha^2 - \beta^2) + \gamma^4\} + \right.$$

$$\left. + d \left[\{(\alpha^2 + \beta^2)^2 - 2(\alpha^2 - \beta^2) + \gamma^4\} + \frac{\gamma^2 + 1}{\alpha^2 + \beta^2} (3\alpha^2 - \beta^2 - 1) \right] \right\}$$

$$\geq 0.$$

- Punctuation at the end of the equation should be consistent with the text following.
- If the equation lies on multiple lines, the equation number should appear on the last line or in the middle of the block (if possible).
- If two or more equations are short, they can also be written on a single line, separated by `\quad` or `\qquad`. For example:

$$\mu_B^j = \frac{1}{Q} w_\alpha^j \eta_B^\alpha, \quad \bar{\mu}_j^B = \frac{1}{Q} \bar{\eta}_\alpha^B \bar{w}_j^\alpha.$$

4.3 Tables and figures

Tables and figures are numbered consecutively throughout the article. They always need a caption describing their contents. A table's caption should be placed *above* the table, while a figure's caption should be placed *below* the figure.

All figures and tables should be referenced in the text and should be placed on the page where they are first cited or in subsequent pages. A collection of tables or figures at the end of the paper should be avoided insofar as possible.

Resolution of raster images should be between 150 and 600 dpi. Vector images containing fonts should have the fonts embedded in the files.

If you include pictures or other material that has already been published elsewhere, please obtain permission from the copyright owner(s) before incorporating it in your article.

5 Bibliography

JINST uses the standard number-only system for references in the text with the enhancements given by `natbib`'s `sort&compress` option. References in the bibliography should appear in the order that they are cited in the text.

Some important rules:

- Every work should appear only once in the reference list.
- Self-citations are not permitted (a reference to the paper in its own bibliography).
- Each item of the bibliography should cite one work only. Phrases introducing cited work (e.g. “See for example”) should not be included within the reference but may be used as part of the text introducing the citation (“See for example [1,2,5,6]”).³

References. The information provided for each reference should be as complete as possible.

articles: author(s), title, journal name, volume, year, page number, arXiv-number. Additional information (erratum, addendum) can be specified too. For example:

M. Anselmino, A. Efremov and E. Leader, *The theory and phenomenology of polarized deep inelastic scattering*, *Phys. Rept.* **261** (1995) 1 [Erratum *ibid* **281** (1997) 399] [hep-ph/9501369].

books: author(s), title, publisher and year. For example:

R. Penrose and W. Rindler, *Spinors and Space-time, Vol. 2: Spinor and twistor methods in space-time geometry*, Cambridge University Press, Cambridge U.K. (1986), pg. 501.

technical report/note: author(s), title, report number. For example:

CMS collaboration, *Technical Design Report Vol. 1*, CERN-LHCC-2006-001.

proceeding/talk: author(s), title, conference information, year. For example:

HERMES collaboration, F. Ellinghaus, *DVCS at HERMES: Recent Results*, in *Proceedings of the Workshop on Exclusive Reactions at High Momentum Transfer*, Jefferson Lab, Newport News, U.S.A., May 2007.

³Should your bibliography not meet this requirement upon acceptance of your paper, it will be corrected during the typesetting stage, which might lead to a longer proofreading stage.