

Sample L^AT_EX Style Guide for European Journal of Mathematical Sciences

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Abstract. This document provides details regarding formatting L^AT_EX articles for European Journal of Mathematical Sciences. The EJMS style is created from modifications of the standard latex “article” style; **Only documents sourced in L^AT_EX and formatted according to these guidelines will be published.** Please contact editor J. Andrew Howe with any questions about this document, or formatting articles for EJMS. This source tex document can be used as a template to simplify article preparation.

2010 Mathematics Subject Classifications: AMS classification codes

Key Words and Phrases: Keyword 1, Keyword 2, Keyword 3, Keyword 4, ...

1. Front Matter

The title page should include a title (`\title{}`) using initial caps, followed by the authors full names in `\author{}`. **Please note that at least the first name must be given in full.** For the running headers, short names, indicated by the first letter of the first name then the surname, should be indicated also. Use `\corrauth{}` to indicate the corresponding author. This is required, as is at least an email address for the corresponding author. If the authors’ affiliations are different, use `\affil{#}` in the author line. Affiliations and addresses should be specified with `\address{}`, using `\affilnum{#}`. A new line should be begun for each affiliation (`\\`). Use `\emails{}` (`\emails{}` for single author), with each email address in a true type font, followed by the short name, and separated with commas. **At lease one email address is required.**

An abstract of no more than 200 words, using the **abstract** environment is required, as are at least 3 keywords in `\keywords{}`. AMS 2010 classification numbers should be specified using `\ams{}`.

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2. Primary Document

2.1. General

The article should be single-spaced, and use of custom macros should be kept to a minimum. Sections and subsections should be created with `\section{}` and `\subsection{}`, and the headings should be typed with initial letters for important words capitalized; numbering is with Arabic numerals. Appendices should be at the end of the paper (after the bibliography) in an unnumbered section (use `\section*{}`). Any acknowledgements should be placed after the conclusion but before the bibliography. They should be entered as a new paragraph, using `\paragraph{\bf ACKNOWLEDGEMENTS}`.

For lists, use either the **enumerate** environment[†]:

- (i) these
- (ii) are
- (iii) enumerated

or the **itemize** environment:

- these
- are
- itemized

If you wish to number / mark items differently, use `\item[(i)]` (or whatever). Alternatively, to define the markers one time for the entire paper, place `\renewcommand{\labelenumi}{(\roman{enumi})}` (or whatever) before the document begins. Also, if you instead want lists with less white space, use the `paralist` package (`\usepackage{paralist}`) and replace the environments with **compactenum** or **compactitem**

2.2. Equations

Inline math should be used sparingly, with equations longer than half a line being used as display equations. **Inline equations will never be allowed to span lines.** Display equations should be numbered on the far right, using arabic numbers that increment throughout the entire paper - not by section. For regular single-line display equations, use the **equation** or **equation*** (no number) environments:

$$\underbrace{Y_{vec}}_{np \times 1} = \underbrace{X_{sup}}_{np \times p(pk+1)} \underbrace{\beta}_{p(pk+1) \times 1} + \underbrace{\varepsilon}_{np \times 1}. \quad (1)$$

[†]We use the **bold** typfont to indicate latex environments that should be opened and closed with `begin` and `end`

For multi-line equations that you want aligned up, use the **eqnarray** or **eqnarray*** environments (see also **split** and **align**):

$$\begin{aligned}
 C_1(\hat{\mathcal{F}}^{-1}) = & \left\{ \frac{m}{2} \log \left(\frac{\text{tr}[(X'_{\text{sup}} \hat{\Omega}^{-1} X_{\text{sup}})^{-1}] + \frac{1}{2n} G}{m} \right) \dots \right. \\
 & - \frac{1}{2} \log | (X'_{\text{sup}} \hat{\Omega}^{-1} X_{\text{sup}})^{-1} | - \frac{p}{2} \log(2) + \frac{p(p+1) \log n}{4} \dots \\
 & \left. - \frac{(p+1)}{2} \log |\hat{\Sigma}_{FGLS}^*| \right\}.
 \end{aligned} \tag{2}$$

For multi-line equations that you want centered together, use the **gather** or **gather*** environments:

$$AIC = np \log(2\pi) + n \log |\hat{\Sigma}| + np + 2m, \text{ where} \tag{3}$$

$$m = \left(p(k+1) + \frac{p(p+1)}{2} \right). \tag{4}$$

For all equations that will be referenced in text, it is preferred that `\label{}` be used in the equation, and `\eqref{}` be used in the text. For example, the first line of the previous equation is labeled with `\label{eqn_AIC}`, referencing with `\eqref{eqn_AIC}` gives (3). The **cases** environment is very useful for equations, as can be seen in (5).

$$f(x) = \begin{cases} -1 & x \leq 0 \\ 1 & x > 0 \end{cases} \tag{5}$$

2.3. Theorem Environments

Theorems, definitions, lemmas, corollaries, remarks, and examples should all be placed in the specified environments. Like sections and equations, numbering for each should proceed through the entire document using Arabic numerals. Use of `\label{}` and `\ref{}` for referencing is preferred (also for floats). Here we have examples:

Definition 1. *This is a **definition**.*

Lemma 1. *This is a **lemma**.*

Theorem 1. *This is a **theorem**.*

Corollary 1. *This is a **corollary**.*

Remark 1. *This is a **remark**.*

Example 1. *This is an **example**.*

Theorems which you want to prove should be accompanied with an instance of the **proof** environment:

Proof. This is a **proof**

2.4. Floats - Tables and Figures

Floating objects - tables and figures should be centered horizontally and placed near but after their first reference in the text. An exception is if a float is placed on the top of the same page. Figures and tables should also be numbered sequentially through the document using Arabic numerals. Figures should have a short caption underneath, and tables should have a short caption above. Examples are in Table 1 and Figure 1.

Table 1: A Caption with Initial Caps.

Step	X_1		X_2	
	$MSE_{SUB,i}$	$MSE_{SAT,i}$	$MSE_{SUB,i}$	$MSE_{SAT,i}$
10	0.0652*	0.0675	0.0325*	0.0337
20	0.0687*	0.0701	0.0321*	0.0330
50	0.0674*	0.0696	0.0334*	0.0346
70	0.0711*	0.0729	0.0339*	0.0349
80	0.0645*	0.0669	0.0315*	0.0327
90	0.0652*	0.0670	0.0319*	0.0329
100	0.0684*	0.0699	0.0333*	0.0340

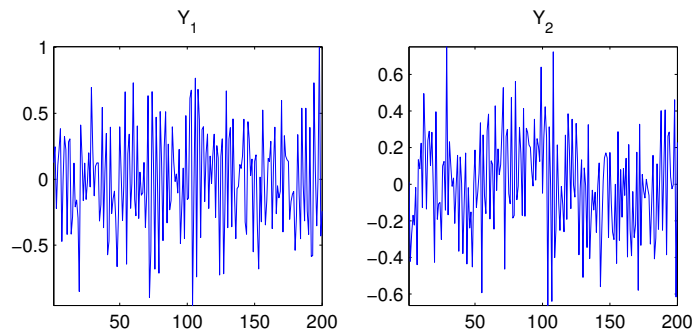


Figure 1: A Caption with Initial Caps.

3. References

The bibliography should be titled "References", with the section heading centered horizontally. It is preferred that bibliographic references be compiled with bibtex, using the "natbib" package with the "plain" style. Inline citations should be numeric references of the form [#]; they can be done with \cite{}, \citep{}, etc.... **Every entry in the bibliography must be cited at least once in the text, and must be alphabetic order by the first author's surname.** In the following sample bibliography, we have:

- [4, 7] are journal articles
- this is a book: [5]

- [1] is an article in a conference proceedings
- an article in a collection: [2]
- [see also 3] as a technical report
- [6] is a PhD Thesis

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