



## A Guide for Authors Preparing Their Accepted Manuscript for JSE

First Last <sup>a</sup> and Another X. van Name <sup>®, b, a</sup>

*a*: Some University, Some Institute, Some Address (Country)

*b*: Another University, Some Department, Another Address (Country)

**Abstract:** Here is the abstract. Abstracts should be self-contained, written in plain text (without numbered or bullet points), and not include any bibliographical references.

**Keywords:** keyword1, keyword2, keyword3

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CENTRE  
MERSENNE

# 1. Preamble

The aim of this document is to be at the same time a manual and a sample of a `.tex` file prepared in the class `mersenne.cls` for submissions accepted for publication.

## 1.1. Compiling this document

The class `mersenne` uses `amsart.cls`, and implements among other things the layout of the journal. To compile this document, and later your article, a concise command is provided by `LATEXmk`, either within your `LATEX` environment or from the command line:

```
latexmk -pdf sample_en.tex
```

This tool automatically runs `pdflatex`, `bibtex`, and other required programs as many times as needed. Alternatively, you can compile the document manually by running:

```
pdflatex sample_en.tex
bibtex sample_en
pdflatex sample_en.tex
pdflatex sample_en.tex
```

This sequence ensures that all references and citations are properly resolved.

## 1.2. Technical guidelines

There is no page limit, but concise yet precise articles are preferred. Our guidelines recommend that all articles should be below 20 published pages (in a single-column, single-spaced, 2.5cm margins, default 11pt font size, bibliography and appendices included).

At submission and before final formatting, lines must be numbered. Tables and figures must be located in the main text, not at the end of the manuscript. All the abbreviations used in the article should be defined, except those obvious to non-specialists. The presence of all tables and figures, additional materials, and the accuracy of the references must be checked. The accessibility of the data, scripts, and codes are mandatory (see Data availability statement). Appendices are allowed, though if they are too long we may require these to be provided as Supporting Information.

## 1.3. Metadata

As you can see in the source file of this document, all metadata—such as keywords, subject numbers, authors, affiliations, email, and URL—should be placed in the relevant fields. Refer to this document’s preamble (including the comments) for more details; it has been customized for this purpose. Note that unused fields should be removed rather than left empty. For example, if an author has no middle name, the command `\middlename{}` should be deleted entirely.

## 1.4. Packages and commands

Since many commands are defined in our class file and uniformity in the compiled output is essential, we ask authors to avoid any command or package that could alter the general layout—such as `\setlength`, `{fourier}`, or similar. Unused commands and packages should also be commented out or removed, as they may still affect compilation.

# 2. Presentation of statistical models

## 2.1. Philosophy

Journal of Statistical Ecology will consider articles that can appeal to statistically-minded ecologists and ecologically-minded statisticians. As such, rules of statistical modelling must be followed and models expressed in code form must also be expressed with mathematical formulas

in the main text. We also ask authors to provide a clear ecological interpretation of their variables and covariables.

## 2.2. Mathematical style guide

We suggest below a couple of rules to homogenize mathematical notation. These should be viewed as guidelines and can be broken on occasion.

- use capital bold for matrices (**A**) and simple bold for vectors (e.g. **x** in  $\mathbb{R}^n$ )
- use `mathcal{}` for probability distributions, e.g.,  $X \sim \mathcal{N}(\mu, \sigma^2)$  for a Normal random variable  $X$  with mean  $\mu$  and variance  $\sigma^2$ , unless this generates confusion. If another style, e.g.,  $X \sim \text{Normal}(\mu, \sigma^2)$  is chosen, it must be homogeneous throughout.
- avoid symbols made of multiple letters (e.g.,  $AB_t$  to mean adult biomass at time  $t$ ) as this can be confused with a product.
- equations are part of sentences and punctuation must be respected. This rule is further explained in this guide on mathematical notation for ecologists (Edwards and Auger-Méthé, 2019).

If you need to or wish to write theorems, please see Appendix B.

## 3. Ecology-related guidelines

### 3.1. Species names

Any named species should be referred to by its binomial (Latin) name in italicized form, such as *Felis catus*, complemented by the common name when unambiguous. When the data analysis relies on multiple species, the data itself should contain the Latin names or a clear table in data or metadata allowing translation without ambiguity regarding the species identity.

### 3.2. Geographical information

Any analysis of spatial data should specify its geographic projection system.

JSE's policy is to favour open research with open code and open data, which is appropriate for most ecological datasets. In some cases, however, such as endangered and exploited species, some care is required before providing location data. Authors should consult [GBIF best practices recommendations](#) and local legislation.

### 3.3. Ethical issues in animal treatment

If some of the data are original (i.e., not integrally published in another previous publication) and require animal experimentation or manipulation, institutional and national guidelines must be followed; when they exist, permit numbers must be provided.

## 4. Figures, Tables and Algorithms

Figures should fit on the page without expanding into the margins and the default 11pt font as well as the default margins should not be changed in the accepted manuscript version. If necessary, figures can be rotated so that they appear in landscape mode. Please insert all figures in a figure environment, by using `\begin{figure}` and `\end{figure}`. This allows you to add a `\caption{}` and to get figure numbers, as well as references to all figures using `\label{fig:mynicefigure}`. What is more important, it allows the figure to *float*, so to move around for best typographical results. It is not a good practice, in general, to force L<sup>A</sup>T<sub>E</sub>X to insert figures *precisely* where you want, so please refrain from adding the option `[H]` which forces L<sup>A</sup>T<sub>E</sub>X to do so: some fine-tuning of figures placement can be discussed at a later stage of production. References to figures in Supporting Information can be automated thanks to package `xr`.

These suggestions also applies to tables and algorithms.



FIGURE 1. Centre Mersenne logo. Note that the caption of a figure should be below the image(s), while the caption of a table should be above its content.

## 5. Miscellaneous $\text{\TeX}$ hints

Here, we gather some tips that might be useful when preparing your article.

- the package `amsmath`, which is automatically loaded, provides the command `\eqref{}` which has the advantage of automatically inserting parenthesis around the number generated by `\ref{}`. So, `\eqref{multinomial}` can be preferred to `(\ref{multinomial})`.
- Sometimes it is useful in formulas to write down a legend or a word in plain text, you may do so with `\text{}`, e.g.,  $\text{logit}(p_{ijk}) = a_i + b_j + \epsilon_{ijk}$ .
- You can use `~` before a digit or any mathematical or a reference, in order to avoid having the symbol go to line alone:

We denote by  $y_{tk}$  the observed data at time  $t$  and replicate  $k$ .

Among other sources, we can recommend [Overleaf's documentation](#) for other good practices.

## 6. Acknowledgements, funding and data availability statements

Acknowledgements should be written inside the command `\thanks{}`. Despite being usually used to thank minor contributors to the article, they can be used to acknowledge any information relevant to readers. Any conflict of interest should be mentioned in that section.

The funding statement, following in the Latex preamble, is optional and can be left empty if no relevant funding has to be acknowledged. A statement separate from the acknowledgements is required for funding information to appear the article's metadata and be cross-referenced appropriately.

Reproducibility must be ensured by making all code, data, and information needed to reproduce the analysis publicly available. These materials should be accessible through dedicated repositories with permanent identifiers. Further information is provided in the section *Data and computer code* of the Author guidelines on the journal website, especially regarding submission.

You will find below how those sections should appear in your article.

### Acknowledgements

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### Funding statement

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## Data availability statement

Data and computer code corresponding to the study are archived at *The repository* with DOI:XXX or/and SWHID:XXX.

## 7. Bibliography

The bibliography style used for JSE is provided with this author pack. All authors are asked to prepare their bibliography in a *separate* .bib file. If your file is called `mynicebib.bib` then you should put this file in the same folder as the .tex file, declare it in your preamble by saying

```
\addbibresource{mynicebib.bib}
```

and finish your document with the lines

```
\printbibliography
```

```
\end{document}
```

which is precisely the way this very sample file finishes. Of course, you will need to upload the .bib file along with the .tex for our production. Please try to keep your .bib file as simple as possible. You can clean it using programs such as bibtool in order to remove unused entries.

JSE uses a citation style similar to the American Psychological Association (APA) style, which is more common than the numerical style in ecology and statistics journals. You may therefore use APA or similar for submitted manuscripts, in combination with `natbib`. You can use `natbib` commands `\citet{}` and `\citep{}` to cite with parentheses over the year or inside parentheses. For example, a classical example in time series analysis of ecological data is provided by Moran (1953) using the well-known Canada lynx fur returns (Elton and Nicholson, 1942), such data has since then been re-analysed with more sophisticated time series models (e.g., Bulmer, 1974; Stenseth et al., 1998). You may also use `\cite{}/\citealt{}` and `\citealp{}` within parentheses (e.g., survival probabilities can be estimated from capture-resighting histories under the Cormack-Jolly-Seber model, as exposed by early on Cormack, 1964). You may cite books as well; the Cormack-Jolly-Seber model is now often formulated in a Bayesian framework (see e.g., Kéry and Schaub, 2011).

## References

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## A. A first appendix section

This is an example of an appendix section.

## B. Theorems and theorem-like environments

You can write theorems using

```
\begin{theo}
Here is a theorem
\end{theo}
```

All theorems share a single counter, which is relative to the section number (so that the first theorem of Section 5 would be Theorem 5.1). The rationale of the naming scheme is to use the 4 first letters of the English label, adding a “s” in a few cases. The printed labels will change automatically with the language set in the `\documentclass`. Some theorems already have aliases, created using `\equalenv` in the Mersenne class files.

English label	environment name	style
Theorem	<code>theo</code> <i>aliases:</i> <code>thm</code> , <code>theorem</code>	plain
Corollary	<code>coro</code> <i>alias:</i> <code>corollary</code>	plain
Proposition	<code>prop</code> <i>alias:</i> <code>proposition</code>	plain
Lemma	<code>lemm</code> <i>alias:</i> <code>lemma</code>	plain
Conjecture	<code>conj</code> <i>alias:</i> <code>conjecture</code>	plain
Definition	<code>defi</code> <i>alias:</i> <code>definition</code>	plain
Question	<code>ques</code>	plain
Remark	<code>rema</code> <i>alias:</i> <code>remark</code>	remark
Remarks	<code>remas</code>	remark
Notation	<code>nota</code>	remark
Notations	<code>notas</code>	remark
Example	<code>exam</code>	remark
Examples	<code>exams</code>	remark

All the “4 letters” theorems have an unnumbered version (e.g. `theo*`), a “cut” version with no “. — ” for theorems starting with a list or equation (e.g. `theoc`), and an unnumbered cut version (e.g. `theoc*`). Those variants only exist for the “4 letters” names, not for aliases.

**Theorem B.1.** *Theorems, Propositions, Lemmas, Corollaries, Definitions, Questions and Conjectures look like this: italic heading, bold upright counter, italic text.*

*Remark B.2.* Remarks, Notations and Examples look like this: italic heading, bold upright counter, upright text.