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Instructions for Formatting JMLR Articles

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Abstract

This document, which is based on an earlier document by Minton et al. (1999), describes the required formatting of JMLR papers, including margins, fonts, citation styles, and figure placement. It describes how authors can obtain and use a LaTeX style file that will ease adherence to the requirements. It also contains a section on avoiding formatting errors that frequently appear in JMLR submissions. While the format requirements are only compulsory for final submissions, we encourage authors to adopt and adhere to its recommendations throughout the submission process.

Keywords: formatting instructions, LaTeX, citations

1. Introduction

To ensure that all articles published in the journal have a uniform appearance, authors must produce a PostScript or PDF document that meets the formatting specifications outlined here. The document will be used for both the hardcopy and electronic versions of the journal.

This document briefly describes and illustrates the JMLR format. It draws *very* heavily from an earlier document by Minton et al. (1999). Your article should look as similar as possible to this document, or to the JMLR sample article which can be found at `http://www.jmlr.org/format/sample.ps`. Below we outline the basic specifications, including font sizes, margins, etc. However, the point is to have your articles look similar to the sample, and when in doubt you should use the sample as your guide. Please feel free to contact the editor of JMLR if you have any questions.

The remainder of this document is organized as follows. Section 2 describes the style and formatting requirements for JMLR papers. Section 3 describes how to obtain the formatting templates that should simplify following the requirements, and Section 4 describes common formatting errors that should be avoided.

2. Style and Format

Papers must be printed in the single column format as shown in the enclosed sample. Margins should be 1 1/4 inch left and right. Headers should be 1/2 inch from top and footer should be 1 inch from bottom of page. Title should start 1 1/2 inches from the top of the page.

2.1 Fonts

You should use Times Roman style fonts. Please be very careful not to use nonstandard or unusual fonts in the paper. Including such fonts will cause problems for many printers.

Headers and Footers should be in 9pt type. The title of the paper should be in 14pt bold type. The abstract title should be in 11pt bold type, and the abstract itself should be in 10pt type. First headings should be in 12 point bold type and second headings should be in 11 point bold type. The text and body of the paper should be in 11 point type.

2.2 Title and Authors

The title appears near the top of the first page, centered. Authors' names should appear in designated areas below the title of the paper in twelve point bold type. Authors' affiliations and complete addresses should be in italics, and their electronic addresses should be in small capitals (see sample article).

2.3 Abstract

The abstract appears at the beginning of the paper, indented 1/4 of an inch from the left and right margins. The title "Abstract" should appear in bold face 11 point type, centered above the body of the abstract. The abstract body should be in 10 point type.

2.4 Headings and Sections

When necessary, headings should be used to separate major sections of your paper. First-level headings should be in 12 point bold type and second-level headings should be in 11 point bold type. Do not skip a line between paragraphs. Third-level headings should also be in 11 point bold type. All headings should be capitalized. After a heading, the first sentence should *not* be indented.

References to sections (as well as figures, tables, theorems and so on), should be capitalized, as in "In Section 4, we show that...".

2.4.1 Appendices

Appendices, if included, follow the acknowledgments. Each appendix should be lettered, e.g., "Appendix A". If online appendices are submitted, they should not be included in the final manuscript (see below), although they may be referred to in the manuscript. They will be published online in separate files. The online appendices should be numbered and referred to as Online Appendix 1, Online Appendix 2, etc.

2.4.2 Acknowledgements

The acknowledgments section, if included, appears after the main body of the text and is headed "Acknowledgments." The section should not be numbered. This section includes acknowledgments of help from associates and colleagues, financial support, and permission to publish.

2.5 Figures and Tables

Figures and tables should be inserted in proper places throughout the text. Do not group them together at the beginning of a page, nor at the bottom of the paper. Number figures sequentially, e.g., Figure 1, and so on.

The figure or table number and the caption should appear under the illustration. Leave a margin of one-quarter inch around the area covered by the figure and caption. Captions, labels, and other text in illustrations must be at least nine-point type.

At present, some types of illustrations in your manuscript may cause problems for some printers/previewers. Although this is gradually becoming less of an issue, we encourage authors to use "reliable" programs for producing figures. Before your paper can be accepted, we must verify that all your figures print successfully on our printers and may be viewed with Adobe Acrobat Reader or Ghostview.

2.6 Headers and Footers

The first page of your article should include the journal name, volume number, year and page numbers in the upper left corner, the submission date and publication date in the upper right corner, and the copyright notice in the lower left corner. The editor will let you know the volume number, year, pages, submission date and publication date.

On the even numbered pages, the header of the page should be the authors' names. On the odd pages, starting with page 3, the header should be the title of the paper (shortened if necessary, as in the sample).

2.6.1 Page Numbering and Publication Date

Upon completion of your article and final approval of the editor, you will be assigned a page number that should be the first page of your article. You should number the remainder of your article accordingly. Page numbers should appear at the bottom of the page in the center. You will also be assigned a volume number and publication date that you will use in the header.

2.6.2 Footnotes

We encourage authors to use footnotes sparingly, especially since they may be difficult to read online. Footnotes should be numbered sequentially and should appear at the bottom of the page, as shown below.[1]

1. A footnote should appear like this. Please ensure that your footnotes are complete, fully punctuated sentences.

2.7 References

The reference section should be labeled "References" and should appear at the end of the paper in `natbib` format. A sample list of references is given in Appendix A. Poorly prepared, incomplete or sloppy references reflect badly on the quality of your scholarship. Please prepare complete and accurate citations.

Citations within the text should include the author's last name and year, for example (Cheeseman, 1992). Append lower-case letters to the year in cases of ambiguity, as in (Cheeseman, 1993a). Multiple authors should be treated as follows: (Cheeseman & Englemore 1988) or (Englemore, Cheeseman & Buchanan, 1992). In the case of three or more authors, the citation can be shortened by referring only the first author, followed by "*et al.*", as in (Clancey et al., 1991). Multiple citations should be separated by a semi-colon, as in (Cheeseman, 1993a; Buntine, 1992). If two works have the same author or authors, the appropriate format is as follows: (Drummond 1990, 1991).

If the authors' names are mentioned in the text, the citation need only refer to the year, as in "Cheeseman and Englemore (1988) showed that...".

In general, you shouldn't have parenthetical statements embedded in parenthetical statements. Therefore, citations within parenthetical statements should not be embedded in parentheses. Use commas as separators instead. For instance, rather than "(as shown by Bresina (1992))" you should write "(as shown by Bresina, 1992)". Similarly, "(e.g., (Bresina, 1992))" should be "(e.g., Bresina, 1992). Note that the `natbib` style file supports the inclusion of prefixes in citations.

3. Formatting Templates

To ready your work for publication, please typeset it using software such LaTeX that produces PostScript or PDF output (LaTeX is preferred.) A LaTeX style file is available at `http://www.jmlr.org/format/jmlr2e.sty` or from the editor. We hope to eventually have macros/samples for other document preparation systems as well. We recommend working from the LaTeX source of the sample article (at `http://www.jmlr.org/format/sample.tex`), which has been annotated to simplify use of the macros in the style file. If you must use a document preparation system other than LaTeX, please discuss this with the editor prior to submitting your final document. If you do not have the software necessary to produce acceptable PostScript or PDF files, the editor will recommend a professional service for formatting your article. (Authors will be responsible for paying for this service).

3.1 Using `jmlr2e.sty`

The LaTeX source for the sample paper, at `http://www.jmlr.org/format/sample.tex`, details the use of most of the macros in `jmlr2e`; we describe a few of the macros here for illustration.

The paper should begin with a specification of the document class and JMLR style file:

```
\documentclass[twoside,11pt]{article}
\usepackage{jmlr2e}
```

The following command can be used in the LaTex version of your paper to set the first page header:

`\jmlrheading{1}{2000}{1-48}{4/00}{10/00}{author list}` # *dates/pages from editor*

To set your title and authors for headings:
`\ShortHeadings{short title}{short authors}`

For example:
`\ShortHeadings{Minimizing Conflicts}{Minton et al.}`

To set your page numbers:
`\firstpageno{?}` *the pagenumber you are assigned to start with by the editor.*

Authors are specified with the "author" macro:

```
\author{\name Author One \email author-one-email\\
       \addr Author One address line one\\
             Author One address line two\\
             Author One address line three...
       \AND
       \name Author Two \email author-two-email\\
       \addr Author Two address line one\\
             Author Two address line two\\
             Author Two address line three...}
```

If multiple authors share an affiliation, it may be appended to the group by specifying:

```
\author{\name Author One \email author-one-email\\
        \name Author Two \email author-two-email\\
        \addr Authors’ address line one\\
              Authors’ address line two\\
              Authors’ address line three...}
```

3.2 Citations using natbib

The recommended citation style file, `natbib`, is included in `jmlr2e.sty`. It supports the citation styles described in Section 2.7 with macros such as `\citep{}` and `\citet{}`. The basic uses of `\citep{}` and `\citet{}` are as follows:

`\citet{jon90}`	→	Jones et al. (1990)
`\citet[chap.~2]{jon90}`	→	Jones et al. (1990, chap. 2)
`\citep{jon90}`	→	(Jones et al., 1990)
`\citep[chap.~2]{jon90}`	→	(Jones et al., 1990, chap. 2)
`\citep[see][]{jon90}`	→	(see Jones et al., 1990)
`\citep[see][chap.~2]{jon90}`	→	(see Jones et al., 1990, chap. 2)
`\citet*{jon90}`	→	Jones, Baker, and Williams (1990)
`\citep*{jon90}`	→	(Jones, Baker, and Williams, 1990)

For details on making citations with natbib macros, see the natbib documentation (Daly, 1997), a copy of which is available at `http://www.jmlr.org/format/natbib.pdf`.

4. Avoiding Common Errors

As we do the final editing passes on JMLR papers, we find a fairly consistent set of problems repeated over and over. Here's a list of them. JMLR won't enforce conformity with these rules, but it would certainly please the editors if you followed them.

Dashes Dashes should be used—with care—to set off interjections in a sentence. They should be long and there should not be spaces between them and the preceding and following words. Thus, in LaTeX, the input should look like this:

```
Dashes should be used---with care---to set off ...
```

Lower case names The names of fields, algorithms, methods, etc., should be in lower case: cognitive science, reinforcement learning, principal components analysis. Exceptions are when they are in names of organizational entities, like Cognitive Science Department, or when they include proper names, such as Markov decision processes or Gaussian densities, or Bayes' rule.

Latin abbrevs. Scientists seem to like to use the Latin abbreviations *i.e.* and *e.g.* First, I'd like to encourage you to try to do without them. If you can't, then use the English equivalents ("that is" instead of *i.e.* and "for example" instead of *e.g.*) If you really love the Latin (then you're a Latin lover?) you should at least do it right. There should be a period after each letter (because they're abbreviations), and there should be a comma after the expression. If you're addicted to these things, I encourage you to define and use LaTeX macros like

```
\newcommand{\ie}{i.e.}
```

Equation numbers Only number equations that are actually referred to later in the text.

Citations Citations are not nouns. It is not correct to say "Using the method of (Smith, 1999), we ..." Instead, say "Using the method of Smith (1999), we ..." or "Using the method of partial discombobulation (Smith, 1999), we ....". See the section on references (Section 2.7) for more details on correct and incorrect citation forms.

Punctuate math Sentences with mathematical statements in them are still sentences, subject to the usual rules of grammar and punctuation. As Knuth et al. (1989) say,[2] you should test this by reading out your paper with things like "snort" and "grunt" substituted in for the mathematics and listening to see whether it's grammatically correct.

It often improves readability if the punctuation in displayed equations is moved out to the right a bit. In LaTeX, you can write

2. I recommend this book highly to anyone who likes to think about technical writing. While we're on the subject, I also highly recommend the (sadly, out of print) *Handbook for Scholars* by Mary-Claire van Leunen (Leunen, 1992).

```
\[a = b\;\;.\]
```

to get a reasonable amount of space between the equation and the period.

Never put a footnote directly after a mathematical expression; it is too easily confused with an exponent.

Hyphenating compound nouns When you have a long string of nouns together, they often need hyphenation to make the meaning clear (and to make your editor happy). Here are some examples of correct expressions:

- reinforcement learning
- reinforcement-learning algorithm
- delayed-reinforcement learning (learning from delayed reinforcement)
- delayed reinforcement learning (reinforcement learning that is delayed)

What are the rules? Here's a simple view: by default, modifiers bind to the phrase to their right. If you want to override that, then you need to use a hyphen. Consider the string of words "country chicken pump dispenser" (seen in an actual catalog). A "pump dispenser" is either something that dispenses pumps or that dispenses by pumping. A "chicken pump dispenser" is, perhaps, a pump dispenser in the shape of a chicken. But a "chicken-pump dispenser" is something that dispenses chicken pumps. The object in the catalog was a soap dispenser in the shape of a country chicken (as opposed to a city chicken, I guess) with a pump. So, probably, it should have been a "country-chicken pump dispenser", since "pump" modifies "dispenser," "country" modifies "chicken," and the phrase "country chicken" modifies "pump dispenser." Whew. Many people think it's bad form to use such long strings of nouns anyway.

Don't use "utilize."

Don't start a section with a subsection A section heading should never immediately follow another section heading without intervening text. So don't do this:

```
5. Experimental Results

5.1 Results on a Simulated Domain
```

Instead, do this:

```
5. Experimental Results

In this section, we first describe blah, blah, blah...

5.1 Results on a Simulated Domain
```

Appendix A: Natbib Reference Examples

The following formatting examples are intended to be illustrative, not exhaustive. If you are uncertain about the proper format for a reference, please contact the JMLR editors.

Book

Richard Bellman. *Dynamic Programming.* Princeton University Press, Princeton, New Jersey, 1957.

Edited Book

Robert R. Bush and William K. Estes, editors. *Studies in Mathematical Learning Theory.* Stanford University Press, Stanford, California, 1959.

Journal Article

Dana Angluin and Philip Laird. Learning from noisy examples. *Machine Learning*, 2 (4):343–370, 1988.

Proceedings Paper

Charles W. Anderson. Strategy learning with multilayer connectionist representations. In *Proceedings of the Fourth International Workshop on Machine Learning*, pages 103–114, Ann Arbor, Michigan, 1987.

Technical Report

Andrew G. Barto. Connectionist learning for control. Technical Report 89-89, Department of Computer and Information Science, University of Massachusetts, Amherst, Massachusetts, 1989.

Dissertation or Thesis

Michael L. Littman. *Algorithms for Sequential Decision Making.* PhD thesis, Brown University, Providence, Rhode Island, 1996.

Forthcoming Publication

Stephen H. Muggleton. Statistical aspects of logic-based machine learning. *ACM Transactions on Computational Logic*, forthcoming.

References

Patrick W. Daly. Natural sciences citations and references. Available electronically at `ftp://ftp.freesoftware.com/pub/tex/ctan/macros/contrib/supported/natbib`, 1997.

Donald E. Knuth, Tracy L. Larrabee, and Paul M. Roberts. *Mathematical Writing.* Mathematical Association of America, Washington, D.C., 1989. ISBN 0-88385-063-X.

Mary Claire Van Leunen. *A Handbook for Scholars.* Oxford University Press, 1992.

Steven Minton, Martha Del Alto, and Helen Stewart. Instructions for formatting jair articles. Available electronically via `http://www.jair.org/submission-info.html`, 1999.