

Formatting Instructions for the 21st International Conference on Autonomous Agents and Multiagent Systems

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ABSTRACT

This document outlines the formatting instructions for submissions to AAMAS-2022. You can use its source file as a template when writing your own paper. It is based on the file ‘sample-sigconf.tex’ distributed with the ACM article template for \LaTeX .

KEYWORDS

Auction Theory, Reinforcement Learning, Social Simulation

ACM Reference Format:

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1 INTRODUCTION

This document explains the main features of the ‘aamas’ document class, which is essentially identical to the ‘acmart’ document class provided by the ACM. The only difference is a minor modification to allow for the correct copyright attribution to IFAAMAS. For detailed documentation of the original document class, please refer to the relevant website maintained by the ACM:

<https://www.acm.org/publications/proceedings-template>

The first command in your source file should be either one of these:

```
\documentclass[sigconf]{aamas}
\documentclass[sigconf,anonymous]{aamas}
```

The first variant should be used for final papers. The second should be used when you submit your paper for blind review; it will replace the names of the authors with the submission number.

Make sure your paper includes the correct copyright information and the correct specification of the *ACM Reference Format*. Both of these will be generated automatically if you include the correct *copyright block* as shown in the source file of this document.

Modifying the template—e.g., by changing margins, typeface sizes, line spacing, paragraph or list definitions—or making excessive use of the ‘\vspace’ command to manually adjust the vertical spacing between elements of your work is not allowed. You risk getting your submission rejected (or your final paper excluded from the proceedings) in case such modifications are discovered. The ‘aamas’ document class requires the use of the *Libertine* typeface family, which should be included with your \LaTeX installation. Please do not use other typefaces instead.

Please consult the *Call for Papers* for information on matters such as the page limit or anonymity requirements. It is available from the conference website:

<https://aamas2022-conference.auckland.ac.nz/>

To balance the columns on the final page of your paper, use the ‘balance’ package and issue the ‘\balance’ command somewhere in the text of what would be the first column of the last page without balanced columns. This will be required for final papers.

2 THE PREAMBLE

You will be assigned a submission number when you register the abstract of your paper on *EasyChair*. Include this number in your document using the ‘\acmSubmissionID’ command.

Then use the familiar commands to specify the title and authors of your paper in the preamble of the document. The title should be appropriately capitalised (meaning that every ‘important’ word in the title should start with a capital letter). For the final version of your paper, make sure to specify the affiliation and email address of each author using the appropriate commands. Specify an affiliation and email address separately for each author, even if two authors share the same affiliation. You can specify more than one affiliation for an author by using a separate ‘\affiliation’ command for each affiliation.

Provide a short abstract using the ‘abstract’ environment.

Finally, specify a small number of keywords characterising your work, using the ‘\keywords’ command.

3 THE BODY OF THE PAPER

For help with typesetting the body of your paper in \LaTeX , please make use of the familiar resources [8]. In this section we merely highlight a few specific features.

3.1 Mathematical Expressions

You can typeset all sorts of in-line mathematical expressions with the usual $\$ \dots \$$ construct, as in $\diamond \diamond \varphi \rightarrow \diamond \varphi$ or $\mathbf{R} = (R_1, \dots, R_n)$. For more complex expressions, it may often be preferable to use one of the various equation-type environments available in \LaTeX , as shown in the following example:

$$Z_i = \frac{u_i(x_i) - u_i(x_{-i})}{u_i(x_i)} \quad (1)$$

Here is a second example for an equation:

$$p_i(\hat{\mathbf{v}}) = \sum_{j \neq i} \hat{v}_j(f(\hat{\mathbf{v}}_{-i})) - \sum_{j \neq i} \hat{v}_j(f(\hat{\mathbf{v}})) \quad (2)$$

Use the usual combination of ‘\label’ and ‘\ref’ to refer to numbered equations, such as Equation (2) above. Of course, introducing

Table 1: Locations of the first five editions of AAMAS

Year	City	Country
2002	Bologna	Italy
2003	Melbourne	Australia
2004	New York City	USA
2005	Utrecht	The Netherlands
2006	Hakodate	Japan

numbers in the first place is only helpful if you in fact need to refer back to the equation in question elsewhere in the paper.

3.2 Tables and Figures

Use the ‘table’ environment (or its variant ‘table*’) in combination with the ‘tabular’ environment to typeset tables as floating objects. The ‘aamas’ document class includes the ‘booktabs’ package for preparing high-quality tables. Tables are often placed at the top of a page near their initial cite, as done here for Table 1.

The caption of a table should be placed *above* the table. Always use the ‘\midrule’ command to separate header rows from data rows, and use it only for this purpose. This enables assistive technologies to recognise table headers and support their users in navigating tables more easily.

Use the ‘figure’ environment for figures. If your figure contains third-party material, make sure to clearly identify it as such. Every figure should include a caption, and this caption should be placed *below* the figure itself, as shown here for Figure 1.



Figure 1: The logo of AAMAS 2022

In addition, every figure should also have a figure description, unless it is purely decorative. Use the ‘\Description’ command for this purpose. These descriptions will not be printed but can be used to convey what’s in an image to someone who cannot see it. They are also used by search engine crawlers for indexing images, and when images cannot be loaded. A figure description must consist of unformatted plain text of up to 2000 characters. For example, the definition of Figure 1 in the source file of this document includes the following description: “Logo of the IFAAMAS – The International Foundation for Autonomous Agents and Multiagent Systems.” For more information on how best to write figure descriptions and why doing so is important, consult the information available here:

<https://www.acm.org/publications/taps/describing-figures/>

The use of colour in figures and graphs is permitted, provided they remain readable when printed in greyscale and provided they are intelligible also for people with a colour vision deficiency.

4 CITATIONS AND REFERENCES

The use of the BibTeX to prepare your list of references is highly recommended. To include the references at the end of your document, put the following two commands just before the ‘\end{document}’ command in your source file:

```
\bibliographystyle{ACM-Reference-Format}
\bibliography{mybibfile}
```

Here we assume that ‘mybibfile.bib’ is the name of your BibTeX file. Use the ‘\cite’ command to produce citations to your references. Here are a few examples for citations of journal articles [4, 11], books [7], articles in conference proceedings [5], technical reports [6], Master’s and PhD theses [1, 3], online videos [9], datasets [2], and patents [10]. Both citations and references are numbered by default.

Make sure you provide complete and correct bibliographic information for all your references, and list authors with their full names (“Donald E. Knuth”) rather than just initials (“D. E. Knuth”).

ACKNOWLEDGMENTS

If you wish to include any acknowledgments in your paper (e.g., to people or funding agencies), please do so using the ‘acks’ environment. Note that the text of your acknowledgments will be omitted if you compile your document with the ‘anonymous’ option.

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