Short Paper Example for Waves 2022

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Abstract

This document provides instructions for preparing short papers for the WAVES 2022 conference. This is also an example. Abstract length should not exceed 150 words.

Keywords: first, second, third

1 Introduction

All papers for WAVES 2022 should be written in English and prepared using the provided LaTeX templates. The file `waves-example.tex` that provides specific preparation instructions is an example; the file `waves-template.tex` is a barebone template. You will also require the macros file, `waves-macros.tex`, that specifies the layout. All three files can be downloaded from the conference website:

http://www.waves2022.fr/

2 Packages and layout of the paper

The LaTeX template for the WAVES 2022 conference starts with some initial definitions and includes the file `waves-macros.tex`. Do not edit this part. A comment indicates where you may put the text for your paper.

The template requires a number of LaTeX-packages (see Table 1), most of which are standard in modern LaTeX installations such as MikTeX or TexLive. They are included by default. You may insert additional `\usepackage` commands you require here. You may also add your own macro definitions here. Do not change the line spacing nor page and margin sizes.

Table 1: Required LaTeX-packages

`inputenc`	support for UTF-8
`graphicx`	include graphics
`color`	use color
`cite`	citations
`amsmath`	AMS style math/theorem env.
`amssymb`	AMS mathematical symbols
`titlesec`	Formating for section headings

The main document consists of only a single `wavespaper` environment:

```
\begin{document}
\begin{wavespaper}{
  Title
}{
  Authors
}{
  Suggested Scientific
  Committee members
}
  ...body of the paper ...
\end{wavespaper}
\end{document}
```

3 Title, authors and suggested reviewers

The `wavespaper` environment takes three arguments: the title of the paper (which may be single or several lines of text), the list of authors and suggested reviewers for the contribution.

The list of contributors has to be provided in a special format. Every paper can have several authors; it must have a speaker that will present the research at the conference. Several special commands are available for listing the contributors:

```
\wavesauthor{name}{address}
\wavesspeaker{name}{address}
\wavesauthortwoadd{name}{add1}{add2}
\wavesspeakertwoadd{name}{add1}{add2}
```

The speaker will be underlined. One or two addresses may be provided per author. If several authors have the same address, you may specify the footnote number of the first author instead of repeating the address (see example in `waves-example.tex`). You may provide a correspondence email for one of the authors. The email address is provided as an optional argument to one of the commands, *e.g.*

```
\wavesspeaker[me@my.fr]{name}{addr.}
```

The papers submitted for WAVES 2022 will be refereed. The review process will be handled

Figure 1: Waves

by the *Scientific Committee.* You should check the committee roster at the conference website, and you may recommend member(s) who you think would be most suitable to lead the evaluation. These individuals should be listed in the third argument of the `wavespaper` environment. If you prefer, you may leave this field blank.

4 Body of the paper

The body of the paper can be written in plain LATEX. It will be typeset in a two column layout.

The paper should start with an abstract, headed by `\section*{Abstract}`. It must contain text only, as it should also be entered in the submission system. All other sections should be headed by numbered `\section` commands.

It is recommended to use the AMS style environments for equations, i.e. `equation`, `align`, `gather`, ... for numbered equations and their starred counterparts (or `\[ ...\]`) for unnumbered equations.

Example of a single unnumbered equation

$$3x + 4y = z.$$

Example of a pair of numbered equations

$$5x = 3z + 4, \tag{1}$$
$$3x + 4y = 2z + 7. \tag{2}$$

For convenience, a number of macros have been predefined for special characters in mathematical formulas. These are:

`\CC`	$\mathbb{C}$	
`\NN`	$\mathbb{N}$	
`\RR`	$\mathbb{R}$	
`\ZZ`	$\mathbb{Z}$	
`\D`	d	(for differentials dx)
`\E`	e	(Euler's number)
`\I`	i	(imaginary unit)

Mathematical theorems can by typeset using the AMS theorem environment. Typing

```
\begin{theorem}
  All WAVES participants produce
  excellent papers.
\end{theorem}
```

will result in

Theorem 1 *All WAVES participants write excellent papers.*

Similar Environments such as e.g. `definition`, `lemma`, `corollary` and `remark` are also defined.

Images or graphs can be inserted with the usual `figure` environment used for Figure 2. Such figures have a width of a single column. Alternatively, a figure spanning the entire page width can be inserted using the `figure*` environment as used for Figure 1.

Figure 2: ENSTA Paris, the conference site

5 References

References should be given at the end of the paper in a `thebibliography` environment. The example below is provided for your convenience. Citations are inserted using the usual `\cite{}` command, such as [1–3].

References

[1] J. Dupond and M. Smith, A Good Paper, *Journal of Important Papers* **44** (2006), pp. 2408–2431.

[2] J. Dupond, A. Dupont and M. Smith, A Good Conference Proceedings, in *Proceedings of the Mathematical Conference, Paris, France, 8-9 December 1978,* pp. 2047–2078.

[3] M. Smith, *A Good Book*, 2nd edition, Important Editions, London, 2006.