

ION Conference Paper Draft User Guide

Fabian Rothmaier, *Stanford University*

BIOGRAPHY

Fabian Rothmaier is a doctoral student at the Stanford University GPS laboratory. He previously worked for Airbus, the European Space Agency and is trained as an airline pilot.

ABSTRACT

This article gives a short description of how to use the ION conference paper \LaTeX template. Manuscripts prepared using this template adhere to all ION paper formatting guidelines while offering the high quality results possible with \LaTeX . This article has been prepared using this template.

DISCLAIMER

This work is distributed under the LATEX Project Public License (LPPL) (<http://www.latex-project.org/>) version 1.3. The opinions expressed here are entirely that of the author. No warranty is expressed or implied. User assumes all risk.

I. INTRODUCTION

This document presents the \LaTeX draft for paper submissions to conferences of the Institute of Navigation (ION). It is intended to support and facilitate manuscript preparation for authors. While the template described tries to comply with all ION conference submission guidelines, the user is encouraged to visit www.ion.org for the latest guidelines.

This guide assumes basic familiarity with \LaTeX . The interested reader is referred to Tobias Oetiker's *Not So Short Introduction to \LaTeX* (Oetiker et al., 2018) for an extensive introduction.

II. INSTALLATION

To use the `IONconf.cls` class file it is sufficient to store it in the same directory as the `.tex` document. Alternatively its path can be specified while calling the documentclass `\documentclass{../sty/IONconf}`.

If the class file is to be installed permanently on the local system, the class file has to be moved to the correct place in the local TeX directory tree. An explanation can be found at <https://latex.org/forum/viewtopic.php?f=12&t=14802>.

III. CLASS OPTIONS

The ION offers several choices to the author in preparing their manuscript. These choices are reflected in class options available to the author. These are invoked at the beginning of the document in the `\documentclass[options]{IONconf}` statement.

1. Paper Size

The author has the choice between A4 and US letter size paper. Paper size and margins are adjusted accordingly. The options to be passed are

- *a4paper*
- *letterpaper*

The default choice is letterpaper.

2. Font

The author has the choice between *Times New Roman* and *Calibri* font. This choice only affects the section headlines and text body, but not the math font. The options to be passed are

- *times*
- *calibri*

The default is times.

The *Calibri* font is a system font that is not installed in L^AT_EX. If the author wishes to use the *Calibri* font, the respective font .ttf files have to be saved in a folder [.tex document folder]/fonts/calibri/ with file names

- Calibri.ttf
- CalibriBold.ttf
- CalibriBoldItalic.ttf
- CalibriItalic.ttf

Selecting the *calibri* option further invokes the `\fontspec` package which requires the *xelatex* or *lualatex* compiler but does not work with the widely used *pdflatex*. The *calibri* option is therefore only accepted by the class file if the *xelatex* or *lualatex* compilers are used. Otherwise *times* is used.

A different Calibri folder directory can be used by changing the definition of the `\CalibriFontFolderPath` command in the class file.

IV. THE TITLE AREA

The title and author section of the document is created with the traditional `\maketitle` command. Prior to this, *title* and *author* have to be specified.

1. Title

The title is specified by the traditional `\title{Title Text}` command. ION author guidelines suggest **the use of title case**.

2. Author

The authors are specified by the traditional `\author{names}` command. Authors are grouped by institution. Authors of the same institution are separated by commas. The institution is listed in the same line in *italic*. Institution groups are separated vertically by the `\vspace{1mm}` command.

V. CITATIONS

In 2021, the ION switched to the APA style reference formatting. In this template, the *natbib* package is used together with the style `\bibliographystyle{apalike}`. This matches the ION formatting guidelines very well while using BibTeX. Use `\citep{}` and `\citett{}` as desired. `\cite` defaults to `\citett`.

All references are stored in the form of a separate .bib bibliography file. An excellent introduction to using the *apalike* style can be found at (Lenth, 2011). A general introduction to using the *natbib* package is given by (Overleaf, 2021b). A good introduction to Bibtex can be found at (Overleaf, 2021a).

The use of other bibliography styles is of course possible and up to the author's discretion. An excellent introduction to the alternative BibLaTeX style is for example given by (Cassidy, 2013).

ACKNOWLEDGEMENTS

The author would like to thank the ION editing staff for their friendly support during the preparation of this template.

REFERENCES

Cassidy, J. (2013). Getting started with BibLaTeX.

Lenth, R. (2011). APA references tutorial with bibTEX.

Oetiker, T., Partl, H., Hyna, I., and Schlegl, E. (2018). The Not So Short Introduction to L^AT_EX₂ ϵ Or L^AT_EX₂ ϵ in 139 minutes.

Overleaf (2021a). Bibliography management with bibtex.

Overleaf (2021b). Bibliography management with natbib.