

# A Short Introduction to PTA Proceedings Format and Style Guidelines

Agata Różańska<sup>1,2</sup> and Radek Smolec<sup>1,3</sup>

1. Nicolaus Copernicus Astronomical Center, Polish Academy of Sciences, Bartycka 18, 00-716 Warsaw, Poland

2. Polish Astronomical Society, Bartycka 18, 00-716 Warsaw, Poland

3. Unseen University

This document serves both as a documentation and as a template for writing articles. It also contains a short style guide and a list of do's and don'ts for authors and editors. Feel free to use this template while writing your contributions to Polish Astronomical Society conference proceedings. The articles containing only abstract will be not be accepted.

## 1 Introduction

The articles for PTA Proceedings should be submitted as a  $\LaTeX$  file using the class `ptapap`. This class is based on the basic class `article` and inherits all its properties.

### 1.1 Submission procedure

**The only submission address is:**

`ptapap@camk.edu.pl`

When submitting to PTA proceedings, please **rename your files using your last name**, e.g., in case your name is Nicolaus Copernicus, these files should be called `copernicus.tex` and `copernicus.bib`. In case of several papers uploaded, please also use the numbering in the file name, e.g., `copernicus2.tex` and `copernicus2.bib`

Please, send us only the source files, i.e.: `.tex`, `.bib` and all figures, all together compressed into one file named the same as `.tex` file. Typically `tar` and `gzip` compressions are most welcome, using the command:

```
tar cvzf surname.tar.gz surname.tex surname.bib fig1.jpg fig2.jpg ...
```

**Compressed directories will not be accepted.**

### 1.2 The need of simplicity

Your manuscripts are meant to be printed as a part of a bounded book, with possible releases in the form of e-book for reading on portable devices. Both outputs have very little in common; producing an e-book requires different parsing. **We ask the authors to use only options supported by our style.** If you need a feature which is not supported, drop us an email<sup>1</sup>, and we will try to make it happen.

---

<sup>1</sup>`ptapap@camk.edu.pl`



Fig. 1: The graphics is usually full width. Ah, splendid times doing science stuff in the early Renaissance...

## 2 Using the class

Use this file (`pta4authors.tex`) as a base of your own manuscript.

Every manuscript needs at least one author, a title and `\maketitle` command as the first typesetting command after the `\begin{document}`. The quite minimal example:

```

\documentclass{ptapap}
\author{First Last}[CAMK]
\author{Second Author}[CAMK, PTA]
\affil[CAMK]{Nicolaus Copernicus...}
\affil[PTA]{Polish Astronomical Society...}
\begin{document}
\maketitle
\begin{abstract}
  put your abstract text here...
\end{abstract}
\section{Introduction}
your text here
\end{document}
    
```

The class itself loads most common L<sup>A</sup>T<sub>E</sub>X packages including `graphicx` and `bibliography`.

### 3 Using equations

The L<sup>A</sup>T<sub>E</sub>X is specially devoted to edit state of art mathematical equations. Please, use only simple equations in the main body of the paper, using `$eq$`. More complicated equations should be separated from the main text and properly labeled. For example, single Eq. 1 may be typeset using:

```
\begin{equation}
\frac{1}{\nu} \frac{\partial(\nu < \upsilon_{\rm z}^2)}{\partial z} = - \frac{\partial\Phi}{\partial z} =
- \frac{\partial \Phi}{\partial z},
\label{eq1}
\end{equation}
```

which generates:

$$\frac{1}{\nu} \frac{\partial(\nu < v_z^2)}{\partial z} = - \frac{\partial\Phi}{\partial z}, \quad (1)$$

nevertheless, a more complex equation may be written as arrays in the following way:

$$\begin{aligned} \alpha_B \Omega P_{\text{tot}} &= \frac{dF_{\text{mag}}}{dz} + \mathcal{H}_{\text{rec}} + \mathcal{H}_{\text{mag}} \\ &= \frac{d}{dz} (2P_{\text{mag}}v_B) + \left( 2\xi\Omega P_{\text{mag}} - v_B \frac{dP_{\text{mag}}}{dz} \right). \end{aligned} \quad (2)$$

The arrays are placed inside `\begin{align}` and `\end{align}` environment. The first line of the Eq. 2 is not numbered by typing `\nonumber` on the end of line.

Some mathematical formulas require to use additional L<sup>A</sup>T<sub>E</sub>X packages, which can be added to this manuscript as follows:

```
\documentclass{ptapap}
\usepackage{amsmath}
```

on the top of this manuscript.

### 4 Using graphics

Unless it is necessary otherwise, all graphics should be placed in figures floats, i.e. separated from the main text. For instance, the Fig. 1 was typeset using:

```
\begin{figure}
\includegraphics[width=\textwidth]{fig1}
\caption{The graphics is usually full width.
Ah, splendid times doing science stuff in the early Renaissance...}
\label{fig:1}
\end{figure}
```

and then you can reference its number in text using `\ref{fig:1}`. The `\label` statement must be placed after the `\caption` statement. Otherwise you can get wrong reference numbers. This is a bug/feature in L<sup>A</sup>T<sub>E</sub>X and we cannot do much about it except placing this warning.

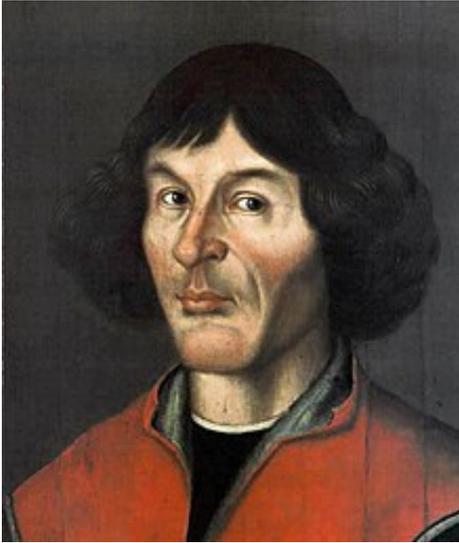


Fig. 2: Dapper young Nicolaus we all know and adore.



Fig. 3: Time makes a fool of us all, eh?

It is up to you whether you use EPS graphics and use the dvi version of your  $\LaTeX$ , or use `pdflatex`. Unfortunately dvi/dvips version of  $\LaTeX$  cannot deal with pdf (only eps files), while `pdflatex` deals with pdf, png and jpg files, while it fails at pure eps files. If you need to include such files we recommend using `pdflatex` instead of plain `latex`. The rule of thumb is: keep conversion of graphic files to necessary minimum, stick to vector graphics if possible for best print results.

Sometimes it is necessary to put two or more figures side-by-side. It is strongly recommended to divide one figure into two or more panels. If you don't know how to deal with complicated graphics do not hesitate to leave it more or less correct.

Here is an example of possible solution of placing two pictures with separate caption side by side using `minipages` (less recommended option, which may be changed by the editor, when necessary).

```
\begin{figure}
  \centering
  \begin{minipage}{0.48\textwidth}
    \includegraphics[width=\textwidth]{face-1.pdf}
    \caption{Dapper young Nicolaus we all know and adore.}
    \label{fig:face1}
  \end{minipage}
  \quad
  \begin{minipage}{0.48\textwidth}
    \includegraphics[width=\textwidth]{face-2.pdf}
    \caption{Time makes a fool of us all, eh?}
    \label{fig:face2}
  \end{minipage}
\end{figure}
```

## 5 Using tables

An example of table is presented in Tab. 1. It was typeset using:

```
\begin{table}[h]
\caption{Table caption here}
\begin{tabular}{|l|ccr|}
your four rows should be placed here
\end{tabular}
\end{table}
```

This particular table is designed for four columns and four rows. Border lines were defined arbitrarily. The align of the text in columns is defined by letters in `\begin{tabular}{|l|ccr|}`, where `l` means left, `c` – center, and `r` – right.

Tab. 1: Fake spectra parameters for A, B, and C model atmospheres. Different combinations of vertical and horizontal lines are used.

name	A	B	C
$T_{\text{eff}}$ [K]	$2.19 \times 10^7$	$2.20 \times 10^7$	$2.21 \times 10^7$
$\log g$ [cgs]	14.25	14.30	14.35
$F$ [erg cm <sup>-2</sup> s <sup>-1</sup> ]	$3.62 \times 10^{-10}$	$4.47 \times 10^{-10}$	$3.46 \times 10^{-10}$

## 6 BiBTeX and bibliographic style

For simplicity, the PAS Proceedings use the A&A and ApJ style for citations. Abbreviations of journal names are taken from `aas_macros.sty`<sup>2</sup>.

Please, do not put the literature references directly at the end of the document like that:

WRONG:

```
\begin{thebibliography}{}
\bibitem[Copernicus(1543)]{1543droc.book....C}
Copernicus, N.\ 1543, Norimbergae, Apud J.~Petreium, 1543;
[Bruxelles, Culture et Civilisation, 1966],
\end{thebibliography}
```

The correct way is to use the `bibtex` (`natbib`) with the `bibtex` bibliography file `yourname.bib`:

```
\bibliography{yourname}
```

---

<sup>2</sup>Originally at [http://doc.adsabs.harvard.edu/abs\\_doc/aas\\_macros.sty](http://doc.adsabs.harvard.edu/abs_doc/aas_macros.sty), but also propagated with this `ptapap` class.

In the original version of this document, we use the `pta4authors.bib`. BiBTeX is nice, because one can easily copy the from the NASA ADS<sup>3</sup>, place it into a file (e.g., `yourname.bib`) and reuse it many times in different journals and bibliography styles. For example, let your file `yourname.bib` contain the following entry,

```
@BOOK{1543droc.book....C,
  author = {{Copernicus}, N.},
  title = "{D revolutionibus orbium coelestium}",
  keywords = {SOLAR SYSTEM, ASTRONOMY: EARLY WORKS TO 1800},
  booktitle = {Norimbergae, Apud J.~Petreium, 1543;
    [Bruxelles, Culture et Civilisation, 1966]},
  year = 1543,
  adsurl = {http://adsabs.harvard.edu/abs/1543droc.book....C},
  adsnote = {Provided by the SAO/NASA Astrophysics Data System}
}
```

In the above example, one can cite Nicolaus Copernicus' original edition as Copernicus (1543) with `\citet`, as well as other references with `\citep`, if need be (Kepler et al., 1985). If the citation has to appears in brackets, please use `\citealt` instead of `\citet` (like here, Kepler et al. 1985). Please, follow the Internet links<sup>4</sup> to get detailed instructions.

Only for references where the number of authors is less or equal three, the whole list of authors will appear in the list of references in case of any style of citation, for instance: (Shaposhnikov et al., 2003). For the number of authors higher than three, only the first name will appear in the list of references, for instance (Lee et al., 2011)

**Please, send us .bib file together with your .tex file. The only .bbl will be not accepted.**

## 7 Style guidelines

Here are some simple style rules we would like to keep (no particular order at this point):

- for quotation marks, use single quotation mark: ' and twice the single quotation mark: ". If you use single quotations marks, then use double quotation marks for a quote within a quote (and vice versa),
- do not use colors in Table/Figure captions,
- use Figure, Equation, Table at the beginning of the sentence, but Fig., Figs. (in case of many), Eq., Eqs., Tab., Tabs, in the middle of the sentence,
- write Fig. 1, Eq. 2, not Fig. (1), Eq. (2),
- keep numbering of sections (`\section`, not `\section*`),
- keep paragraphs intended,

---

<sup>3</sup>Note in the new ADS the BiBTeX entry for an article can be found under Export Citation link on the left

<sup>4</sup><http://merkel.zoneo.net/Latex/natbib.php>

- use either British (colour, modelled, optimise) or American (color, modeled, optimize) spelling consistently throughout the article,
- use footnotes for Internet websites<sup>5</sup>,
- write the units with the Roman font (in math mode it requires `\text{}` or `\mathrm{}` of `amsmath`),
- mathematical symbols should be written in *Italic*, while their superscripts or subscripts should be in Roman font, as in case of magnetic flux:  $F_{\text{mag}}$ ,
- names of functions should be in Roman as:  $\log g$  by typing `\log g$`,
- use vector graphics for best printing results, but try to make the files as small in size as possible,
- if any of the above rules are unclear, please drop us an email<sup>6</sup>.

## 8 Input and output encoding

The class enforces UTF-8 encoding. We strongly suggest authors keeping UTF-8 in their manuscripts. We assume that UTF-8 is *de facto* standard of encoding in the second decade of XXI century.

If you absolutely can not use UTF-8, you can type `\usepackage[...]{inputenc}` but keep in mind we will have to re-encode your text.

*Acknowledgements.* We thank Krzysztof Leszczyński and Michał Bejger for creating and developing this `ptapap` class. This work was partially supported by the Polish Astronomical Society and the Nicolaus Copernicus Astronomical Center, Warsaw, Poland.

## References

- Copernicus, N., *De revolutionibus orbium coelestium* (1543)
- Kepler, J., Ptolemy, Copernicus, N., *The Major writings of Ptolemy, Nicolaus Copernicus, Johannes Kepler.* (1985)
- Lee, H., et al., *ApJ* **731**, 126 (2011)
- Shaposhnikov, N., Titarchuk, L., Haberl, F., *ApJ* **593**, L35 (2003)

---

<sup>5</sup>Take a look at this cool site: <https://www.pta.edu.pl/proc> .

<sup>6</sup>[ptapap@camk.edu.pl](mailto:ptapap@camk.edu.pl)