# Formatting Instructions for the "Topological Data Analysis and Beyond" Workshop at NeurIPS 2020

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#### **Abstract**

This document provides a basic template for your paper and explains the submission guidelines. Try to limit your abstract to a single paragraph, ideally between 4–6 sentences long.

#### 1 Submission details

We require electronic submissions via OpenReview. Use the following site for your submission:

https://openreview.net/group?id=NeurIPS.cc/2020/Workshop/TDA\_and\_Beyond

Please read the instructions below carefully and follow them faithfully. If you have any questions, reach out to workshop@topology.rocks.

## 2 Style file

Papers to be submitted to the 'Topological Data Analysis and Beyond workshop' must be prepared according to the instructions presented here. Papers may only be up to four pages long, including figures. Additional pages containing (i) *acknowledgements*, (ii) *funding statements*, (iii) *cited references*, and/or (iv) *supplemental information* are allowed. Papers that exceed four pages of content (not counting any appendices or supplements) will not be reviewed, or in any other way considered for presentation at the workshop. The margins follow the NeurIPS 2020 template.

This LATEX style file contains three optional arguments: final, which creates a camera-ready copy, preprint, which creates a preprint for submission to, e.g., arXiv, and nonatbib, which will not load the natbib package for you in case of package clash.

**Preprint option** If you wish to post a preprint of your work online, e.g. on arXiv, using the NeurIPS style, please use the preprint option. This will create a non-anonymous version of your work with the text "Preprint. Work in progress." in the footer. This version may be distributed as you see fit. Please **do not** use the final option, which should **only** be used for papers accepted to the workshop.

At submission time, please omit the final and preprint options. This will anonymise your submission and add line numbers to aid review. Please do *not* refer to these line numbers in your paper as they will be removed during generation of camera-ready copies.

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<sup>\*</sup>Use footnote for providing further information about author (webpage, alternative address)—not for acknowledging funding agencies.

The file neurips\_2020\_tda.tex may be used as a "shell" for writing your paper. All you have to do is replace the author, title, abstract, and text of the paper with your own. The formatting instructions contained in these style files are summarized in Sections 3, 4, and 5 below.

# **3** General formatting instructions

For the final version, authors' names are set in boldface, and each name is centred above the corresponding address. The lead author's name is to be listed first (left-most), and the co-authors' names (if different address) are set to follow. If there is only one co-author, list both author and co-author side by side. Feel free to use footnote marks such as † in order to indicate equal contributions.

Please pay special attention to the instructions in Section 5 regarding figures, tables, acknowledgements, and references.

## 4 Headings

All headings should be lower case (except for first word and proper nouns), flush left, and bold.

## 5 Citations, figures, tables, and references

These instructions apply to everyone.

#### 5.1 Citations within the text

The natbib package will be loaded for you by default. Citations may be author/year or numeric, as long as you maintain internal consistency. As to the format of the references themselves, any style is acceptable as long as it is used consistently.

The documentation for natbib may be found at

http://mirrors.ctan.org/macros/latex/contrib/natbib/natnotes.pdf

Of note is the command \citet, which produces citations appropriate for use in inline text. For example,

```
\citet{hasselmo} investigated\dots
```

produces

```
Hasselmo, et al. (1995) investigated...
```

If you wish to load the natbib package with options, you may add the following before loading the neurips\_2020\_tda package:

```
\PassOptionsToPackage{options}{natbib}
```

If natbib clashes with another package you load, you can add the optional argument nonatbib when loading the style file:

```
\usepackage[nonatbib]{neurips_2020_tda}
```

As submission is double-blind, you should refer to your own published work in the third person. That is, use "In the previous work of Jones et al. [4]," not "In our previous work [4]." If you cite your other papers that are not widely available (e.g. a journal paper under review), use anonymous author names in the citation, e.g. an author of the form "A. Anonymous."

Table 1: Sample table title

|                          | Part   |  |
|--------------------------|--|--|
| Name                     | Description                                    | Size (µm)  |
| Dendrite<br>Axon<br>Soma | Input terminal<br>Output terminal<br>Cell body | $\begin{array}{c} \sim \! 100 \\ \sim \! 10 \\ \text{up to } 10^6 \end{array}$ |

#### 5.2 Footnotes

Footnotes should be used sparingly. If you do require a footnote, indicate footnotes with a number<sup>2</sup> in the text. Note that footnotes are properly typeset *after* punctuation marks.<sup>3</sup>

#### 5.3 Figures

All artwork must be neat, clean, and legible. Lines should be dark enough for purposes of reproduction. The figure number and caption always appear after the figure. Place one line space before the figure caption and one line space after the figure. The figure caption should be lower case (except for first word and proper nouns); figures are numbered consecutively. You may use colour figures. However, it is best for the figure captions and the paper body to be legible regardless of whether the paper is printed in black/white or in colour. Moreover, when designing figures, please ensure that your colours can be distinguished by the colour-blind. Visit

https://colorbrewer2.org

for more advice on choosing colours.

#### 5.4 Tables

All tables must be centred, neat, clean and legible. The table number and title always appear before the table. See Table 1. The table title must be lower case (except for first word and proper nouns). Note that publication-quality tables *do not contain vertical rules*. We strongly suggest the use of the booktabs package, which allows for typesetting high-quality, professional tables:

https://www.ctan.org/pkg/booktabs

This package was used to typeset Table 1.

## 6 Final instructions

Do **not** change any aspects of the formatting parameters in the style files. In particular, do not modify the width or length of the rectangle the text should fit into, and do not change font sizes (except perhaps in the **References** section; see below). Please note that pages should be numbered.

Margins in LATEX Most of the margin problems come from figures positioned by hand using \special or other commands. We suggest using the command \includegraphics from the graphicx package. Always specify the figure width as a multiple of the line width as in the example below:

```
\usepackage[pdftex]{graphicx} ...
\includegraphics[width=0.8\linewidth]{myfile.pdf}
```

See Section 4.4 in the graphics bundle documentation (http://mirrors.ctan.org/macros/latex/required/graphics/grfguide.pdf)

<sup>&</sup>lt;sup>2</sup>Sample of the first footnote.

<sup>&</sup>lt;sup>3</sup>As in this example.

**Hyphenation** A number of width problems arise when LaTeX cannot properly hyphenate a line. Please give LaTeX hyphenation hints using the \- command when necessary.

## **Broader Impact**

Authors may optionally include a statement of the broader impact of their work, including its ethical aspects and future societal consequences. Authors may discuss both positive and negative outcomes, if any. For instance, authors might discuss (i) who may benefit from this research, (ii) who may be put at disadvantage from this research, (iii) what are the consequences of failure of the system, and (iv) whether the task/method leverages biases in the data. Use unnumbered first level headings for this section, which should go at the end of the paper. **Note that this section does not count towards the four pages of content that are allowed.** 

## **Acknowledgments and Disclosure of Funding**

Use unnumbered first level headings for the acknowledgements. All acknowledgements go at the end of the paper before the list of references. Moreover, you are required to declare funding (financial activities supporting the submitted work) and competing interests (related financial activities outside the submitted work). More information about this disclosure can be found at: https://neurips.cc/Conferences/2020/PaperInformation/FundingDisclosure.

Do **not** include this section in the anonymised submission, only in the final paper. You can use the ack environment provided in the style file to automatically hide this section in an anonymous submission.

#### References

References follow the acknowledgements. Use an unnumbered first-level heading for the references. Any choice of citation style is acceptable as long as you are consistent. It is permissible to reduce the font size to small (9 point) when listing the references. Note that the Reference section does not count towards the four pages of content that are allowed.