

# L<sup>A</sup>T<sub>E</sub>X instructions for authors

BASED ON A DOCUMENT BY COLIN ROURKE

First, thank you for reading and for publishing with us! This document is written for authors of papers in *Geometry & Topology* and *Algebraic & Geometric Topology*, and has two main parts:

[Section 1](#) gives general instructions and advice pertinent to all authors. If your source files don't follow these guidelines, we may ask you to revise and resubmit them before we can begin processing your article for publication. This section also describes some essential features of our house style.

[Section 2](#) contains instructions for authors who wish to use our public class file, `gtpart.cls`, to format their article before submitting source files. Using our class file is completely optional, so don't do it if you aren't so inclined or if it will distract you from more important tasks. In that case we will convert your source files to use `gtpart.cls` during the production process.

## 1 Instructions for everyone

### 1.1 The basics

Authors are expected to submit articles in well-structured L<sup>A</sup>T<sub>E</sub>X. This means at a minimum the following:

- Bibliography structured using standard L<sup>A</sup>T<sub>E</sub>X syntax (or generated by Bib<sub>T</sub>E<sub>X</sub>) with citations made using the `\cite` command.
- Sections, subsections, figures, tables, numbered equations, etc, labelled and cross-referenced using `\label` and `\ref`.
- Theorems, remarks, definitions, etc, set out using proper environments (defined with `\newtheorem` commands) and also labelled and cross-referenced with `\label` and `\ref`.
- Figures, whether prepared electronically or hand-drawn, must be of publication quality. Fuzzy or sloppily drawn figures will not be accepted. If you're not sure whether a particular figure is acceptable, check with production by sending an email to [graphics@msp.org](mailto:graphics@msp.org).

These points are far more important than using `gtpart.cls`. It is comparatively easy to reformat a well-structured file. But adding properly structured cross-references, for example, is time-consuming and likely to introduce errors. Hence, we may ask you to revise and resubmit your source files if they do not meet the guidelines listed above.

## 1.2 G&T and AGT style

Published articles in G&T and AGT will conform to the guidelines in this section. If the submitted version of your article doesn't adhere to them, we will make the appropriate changes during the production process.

**Document structure** You are strongly encouraged to give a structured outline of your paper in the introduction.

Do not use the `\thanks` field. You are encouraged to have a (sub)section called “Acknowledgements”, either at the end of the introduction or immediately preceding the bibliography.

**Numbering schemes** A wide variety of numbering schemes are acceptable. The “standard style” has theorems numbered within sections and with separate counters for equations, figures, tables and sub(sub)sections. The following guidelines apply:

- To make it easier to find cross-references in the printed version of your article, numbered environments such as theorems, propositions, lemmas, definitions, remarks, notation, etc, should all share a single counter.
- Equations can be numbered consecutively or within sections, or in sequence with numbered environments.
- Floating material (figures and tables) should not share counters with nonfloating material (theorems, definitions, etc).
- You may use `\swapnumbers` to reverse the order of theorem names and numbers.
- To make it easy for others to cite your paper unambiguously, it is nice to avoid numbering conflicts between subsections and results. (Some authors improperly cite Lemma 4.1 as just 4.1, for instance, so the possibility of confusion is real.) Numbering subsections alphabetically, eg 1A, 1B, ..., 2A, 2B, ..., or in the same sequence with results, avoids this possibility.

**Citation style** Throughout the introduction (at the least), citations should be accompanied by the names of the authors. For example: “We recommend Ginzburg and Weinstein `\cite{ginzwein}` for background reading.” You don't need to add the names again if the paper has been cited recently.

Cite specific results, definitions, sections, etc rather than whole works whenever possible. We may ask you to supply such details if they are missing.

**Punctuation and abbreviation** We use “Guardian style” with regard to punctuation. This is a streamlined style that omits full stops from ie, eg, cf, etc, and other common abbreviations. This style is clear, unambiguous, and easy on the reader's eyes. In this vein, we also omit full stops from figure or table captions that consist solely of a noun phrase.

We expand most abbreviations: thus “see Theorem 3.7” rather than “see Thm. 3.7”. The space saved by this kind of abbreviation is small and makes the paper look like a set of notes. Similarly, “pages 47–50” is preferable to “pp. 47–50”.

**Graphics** We expect to maintain a very high standard in all graphical content:

- Graphics should be prepared electronically unless this is completely impractical. Figures should normally be vector graphics and submitted either in PDF or EPS format.
- Bitmapped figures (eg JPG or PNG filetypes) should be generated at the highest possible resolution (at least 300 dpi).
- Figure labels should be generated using L<sup>A</sup>T<sub>E</sub>X, so that we can edit the results if necessary. This will make the label fonts match the fonts used throughout the paper, and also allows us to resize the figures to satisfy the needs of the layout without making labels illegible. We have written the L<sup>A</sup>T<sub>E</sub>X package `pinlabel`, available at <https://msp.org/gtp/macros/pinlabel.sty>, for this purpose. Comprehensive documentation for this package can be found at <https://msp.org/gtp/macros/pinlabdoc.pdf>.

Email [graphics@msp.org](mailto:graphics@msp.org) if you’re not sure whether a particular figure is acceptable or if you have other graphics-related questions.

**Other considerations** The following guidelines are not requirements, but they will save time and effort for you and for our production staff:

- There is no point in extensively customizing the layout of your paper by using explicit spacing commands (`\vskip`, `\hspace`, etc), by altering layout parameters (`\textwidth`, `\textheight`, `\pagestyle`, etc) or by using packages such as `geometry`. All such customizations will be removed as part of the production process to ensure that the journal has a consistent look throughout.
- The fewer external L<sup>A</sup>T<sub>E</sub>X packages you use, the better, but some are unavoidable. The list of relatively trouble-free packages includes `diagrams`, `amscd`, `xy`, `tikz-cd`, `tikz`, `pgfplots`, `pinlabel`, `geomsf`, `slashed`, `pifont`, and `stmaryrd`.

## 2 Instructions for using `gtpart.cls`

Our public class file is available at <https://msp.org/gtp/macros/gtpart.cls>. At <https://msp.org/gtp/macros/gtlatex.tem> you can find a template for an article that uses this class file. Further instructions for how to use `gtpart.cls` are contained in the template.

**arXiv papers** You will see the field `\arxivreference{}` in the preamble of the template. If your article has been deposited on the arXiv, please fill out this field with its reference number. This allows us to deposit the DOI of the published version on the paper's arXiv page.

For the newer-style reference numbers containing a period, only the number itself is needed (eg 1604.00199); the prefix `arXiv:` is not required. For older reference numbers without a period, please include the prefix (eg `math/0305071`).

**The bibliography** Our house Bib<sub>T</sub>E<sub>X</sub> style file, `gstart.bst`, can be downloaded from <https://msp.org/gtp/macros/gstart.bst>. This style can be loaded by placing the command `\bibliographystyle{gstart}` just before the `\bibliography` command. You're free to use any style you like for submission, but we will change it to our style during production.

**Article mockup** By adding one of `\gstart`, `\agstart` or `\gtmonart` (according to the appropriate journal) near the start of the paper (eg after the `\usepackage` commands) you can make `gtpart.cls` produce a full mockup of a published article, which uses the same running heads and feet as in the actual journal (with dummy page numbers and dates). Please do not place your article in a public place (eg on the arXiv) in mockup form unless it has been accepted for publication in the relevant journal.

**Final notes and warnings** When converting your article to our class file, please check very carefully that all of the symbols are displayed as you intend. There may be unpredictable interactions between our class file and any external packages you may have loaded.

Please note that we use commercial fonts in production, which are not quite the same as those used by `gtpart.cls`. Thus, even if you use our class file, page and line breaks may vary from those in your prepared file.

*Mathematical Sciences Publishers*  
*Department of Mathematics, University of California*  
*Berkeley, CA, United States*

[contact@msp.org](mailto:contact@msp.org)

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