

{ Draft -- Feb.1 2018; replace with a blank line in final submission }

Template for Bridges Proceedings Paper

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Abstract

This document serves as a template for the preparation of papers to be published in the refereed Proceedings of the Bridges Conference. It contains detailed formatting instructions as well as some general guidelines for appropriate content of such papers. Adherence to this template is important, since the Proceedings will be composed directly from your manuscripts in their final submitted form. Your abstract should be only one paragraph, comprising anywhere from three to eight lines of text—the shorter the sweeter. Abstracts will be used separately from the rest of the paper; please avoid footnotes, citations, as well as special symbols and formatting.

Some Guide on Content

Let's start with some advice on the subject matter and content of a Bridges paper, since this should be an author's first concern. The Bridges Proceedings are considered a refereed journal, and as such we are trying to maintain quality standards that will make its papers count in academic personnel reviews and promotion cases. Thus, most importantly, every paper should present some novel achievements, experiments, artwork, and/or insights by the authors. General reviews or tutorials, cobbled together from various blogs or Wikipedia pages are not appropriate. Also, keep in mind, that the number of pages in the Proceedings as well as your presentation time at the conference are limited; so choose a scope for your presentation that fits into these constraints.

Regular papers should be either 8 or 6 pages including references. Under exceptional circumstances 10 pages are admissible, but you may have to pay for the extra pages. Every paper should nicely fill an even number of pages without a lot of wasted white space, so that we can make optimal use of the Proceedings pages and start every paper on a right-hand page.

Short papers, which have a later submission deadline, should be 4 or 2 pages long. Here it is particularly important to focus on just one or two novel ideas and results. Short papers are not a good medium to give tutorial introductions or cursory reviews over a domain that could be the subject of one or more books. Also, this is not the place to give preliminary ideas on new teaching experiments, or to present intuitive hunches how some classical artwork might be analyzed in a novel way. Such initial ideas should be presented in the "Open Mike" session, where authors can solicit feedback on their ideas. A Bridges paper can then be written, when the experiments or novel analysis have been performed and when concrete results are available.

The program committee has found that certain types of papers almost always need to be rejected: papers on numerology or work that extracts numbers or ratios from artwork or architecture. A somewhat "fuzzy" search for the Golden Ratio (or any other ratio) will almost always produce some hits (a simple matter of statistics). However, such coincidences do not tell us anything about the method or intent of the creator of those artifacts, unless there is some other compelling evidence, such as auxiliary lines or notes that explicitly state what the artist or architect was doing.

Please write your paper in such a way that attendees with a general education can follow your discourse without the need to look up several references to find out what the main gist is of your paper. Skip lengthy sections on *background* and *previous work* and instead give clear and detailed explanations on your novel contributions, ideally well-supported with diagrams and/or images.

Use of this Template

If you are writing your paper using MS-Word or a compatible word-processor such as OpenOffice [4], please use a copy of this document as your starting point. This template has been set with the proper paper size and all the necessary *styles* for proper formatting. Just replace segments in this text with your own text; introduce it as pure text and, if necessary, select the appropriate style from the style menu. Also substitute your own image for the figures in this template, either as an individual figure like Figure 1, or, alternatively, as in the composite Figure 2. By default, figures are placed in-line with text, starting on a new line, and separated horizontally by a few blank spaces. The line that contains the figure(s) should have its *style* set to be *Figure Display*. Each figure is then followed by a paragraph with style *Figure Caption*.



Figure 1: *An individual figure [6]. Make it large enough so that necessary details can be seen. Fine-tune its size, so that you obtain convenient page breaks.*

Paper Size, Margins, and Styles

The Proceedings will be printed using US Letter size paper (8.5 by 11 inches) as in this document. If you are working outside the USA, please check that you have not used A4 paper, which may be the default in your country. Do not insert page numbers, headers or footers; these will be inserted later at the publishing stage.

This template has the proper margins set. The result should conform to the following specifications: On the first page, the distance from the top edge of the paper to the first line of the title should be 3 cm (1+3/16 inches). To achieve this, we have placed one extra line with font size 16 pt at the top of the title page (tentatively shown in green). In earlier drafts, you can use this line to indicate the date of the particular draft. For the final submission replace the text on that line with a space. On the second and subsequent pages, the distance from the top edge of the paper to the top of the first line of type should be 2.5 cm (1 inch). The widths of the margins on left and right edges and at the bottom of the page should all be 2.5 cm (1 inch) as well. Use one blank line between the end of the paragraph and the next major heading.

The default font is *Times New Roman*. The text of the main body, as well as the figure captions use size 11 pt. Section headings, authors, and affiliations are size 12 pt. Paper title is 16 pt. Abstract is 9 pt. Use this template to see what items are printed in **bold face** or in *italics*. When editing your document in MS-Word, make sure you have the *Styles Pane* open, so that you can readily click and choose the desired style for any piece of text. This panel also contains a small *Blank_line* (of 8 pt); this comes in handy, when you want to balance the length of a page or insert some extra space between the main text and figures and/or figure captions.

The Styles Pane shows two types of paragraphs: *Body Text* and *Body Text 2*. Use the first type (which has no indentation) after a section heading or after an inserted figure. Use the second type (with

0.3” indentation) for all subsequent paragraphs. These styles will justify text to both the left and right margins, which is the correct Bridges style.

Figures and Tables

You must obtain permission and include attribution to use any copyrighted material. Images should be high quality and clearly readable in both color and grayscale PDFs of your paper. But be careful that your images do not make your PDF larger than 10 Mb. To insert a figure, just start a fresh line and use the *Insert Pictures* command to bring in a figure, then re-scale it interactively to a convenient size. You can also copy and paste figures from another document [5]. Set the line style to *Figure Display*. The figure is then followed by a paragraph with style *Figure Caption*. You need to enter manually the string “**Figure 1:**” and then set it to **bold and not-italic**. I did not use the automatic figure and table numbering system in this template; I found it often to be more trouble than helpful. Add an extra empty line after the *Figure Caption*.

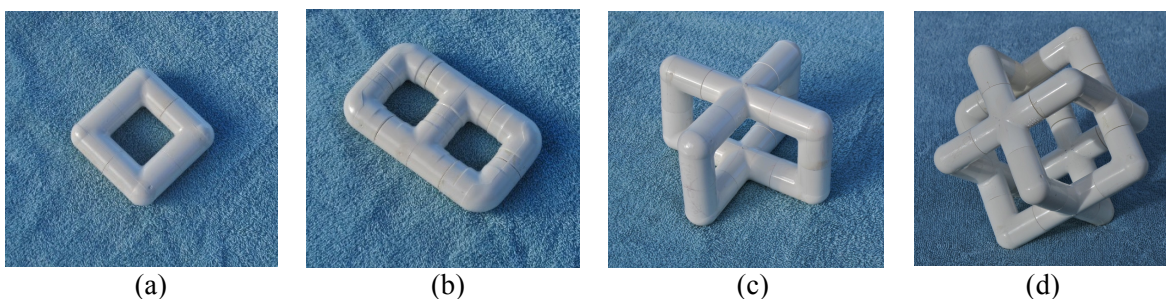


Figure 2: Orientable handle-bodies made from PVC pipe components: (a) simple torus of genus 1, (b) 2-hole torus of genus 2, (c) handle-body of genus 3, (d) handle-body of genus 7.

Tables are mostly treated just like figures, except that the *Figure Caption* is placed above the table body, and that it starts with the string “**Table 1:**”. All figures and tables must be referenced and explained in the main text, and they must not bleed into the margins.

Table 1: Number of Topologically Different Linkings of Two Cube-Frames.

	2 edge-loops	3 edge-loops	4 edge-loops	5 edge-loops	6 edge-loops	
2 edge-loops	2sm, 1dm					3
3 edge-loops	0	1sm, 1sp, 2sc, 2dm				6
4 edge-loops	0	2dc	1sm, 10sc, 2dm, 10dc			25
5 edge-loops	0	0	1dm, 20dc	16sc, 3dm, 1dp, 24dc		65
6 edge-loops	0	0	3dm, 2dc	26dc,	14sc	45
					total:	144
	s: swap symmetry		m: mirror symmetry			
	d: different roles		c: chiral configuration		date:	1/20/2016
	for the two frames		p: pseudo chirality			

Sections and Subsections

Important words should be capitalized in your paper’s title and section headings, while conjunctions (e.g., “and” / “or”) and prepositions (e.g., “of” / “with”) begin with a lower case letter. Avoid most punctuation (one colon or comma is acceptable). Do not end a lone title or section heading with a period. For section headings use the style *Heading 1*. Do not use numbered sections unless you refer to a section by number rather than title in the text. If you must have your sections numbered use the style *Heading Numbered 1*. For any 8-page Bridges paper, it would probably be excessive to use more than two levels of hierarchy in

your document. In all papers the **Abstract**, **Acknowledgments**, and **References** headings are unnumbered sections.

Subsections

If needed, you may introduce subsections using the style *Heading 2*. Subsections are never numbered.

Vertical Spacing and Page Breaks

The various styles for headings and paragraphs come with their own built-in vertical spacing. By default they should result in a good-looking layout. But occasionally it is necessary to change vertical spacing a little in order to avoid inconvenient page breaks. Try to avoid the last line of a paragraph appearing at the beginning of the next page and don't leave a section title on a separate page from what follows. Feel free to introduce an extra line of empty text, or to insert a *Blank_line* to improve layout.

Wrap-up

The paper should end with a brief section that provides some **Summary and Conclusions**. This may be followed by **Acknowledgments** (optional) and **References**. Only list references that you cite in your paper. List all references alphabetically by last name of first author and number them sequentially; style *Reference* will do this for you. When citing references in the text, type the corresponding number in square brackets and use a reference like: “see Coxeter [1]” or just insert “[1]” after the corresponding quote. See the references for correct article [1], book [3], and Bridges Conference Proceedings [5] citations.

Writing Style and Final Format

There is no need to use only the passive voice, often encountered in some formal academic journals. It is perfectly acceptable to use the first person “I” when talking about your own artistic endeavors, and the inclusive, academic “we” works well for more formal statements.

To submit your paper via EasyChair [2], you will have to convert it into a PDF (Portable Document Format) file. Papers will appear in the online Bridges Archives in color but the print version of the Proceedings is in grayscale. To check how this will look examine a grayscale PDF of your paper. Do not use color for emphasis in illustrations; use line thickness or grayness instead. If you have problems creating a PDF file, please contact the editors as soon as possible, so that we may help you.

Summary and Conclusions

Please adhere to the style incorporated in this template. Substantive deviations from this style are grounds for rejecting your paper without any detailed review.

Acknowledgements

Suggestions on how the clarity and usefulness of this guide could be enhanced would be gladly accepted.

References

- [1] H. S. M. Coxeter. “The Non-Euclidean Symmetry of Escher’s Picture Circle Limit III.” *Leonardo*, vol. 12, no. 1, 1979, pp. 19–25.
- [2] EasyChair. Log in page. <https://easychair.org/account/signin.cgi>.
- [3] G. W. Hart and H. Picciotto. *Zome Geometry: Hands-on Learning with Zome Models*. Key Curriculum Press, 2001.
- [4] OpenOffice. <https://www.openoffice.org>.
- [5] C. H. Séquin. “From Klein Bottles to Modular Super-Bottles.” *Bridges Conference Proceedings*, Jyväskylä, Finland, Aug. 9–13, 2016, pp. 41–48.
<http://archive.bridgesmathart.org/2016/bridges2016-41.html>.