An improved LaTeX template for Icarus submissions that eases the transition to the final Elsevier publication process

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An improved LaTeX template for Icarus

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ABSTRACT

The Icarus Editorial Office does not provide any kind of electronic template (LATEX or otherwise) for authors to follow for submission, only a set of written instructions. Elsevier, the publisher for Icarus, provides a LATEX template but its formatting is different from that required by Icarus during the sumission and review process. Ideally, one template that could be used for both processes that requires minimal of fiddling to convert from "Icarus" mode to "Elsevier" mode is desired.

1 Introduction

Elsevier provides a LATEX class file (`elsart.cls`), a bibliography style file for BibTEX (`elsart-harv.bst`), and a template file (`template-harv.tex`) for authors to use during the publishing process (Table 1). The Icarus Editorial Office does not provide any template files, and has formatting requirements that are different from those provided in the Elsevier template.

We have created a template, based on the Elsevier template file, that can be used for both submission to the Icarus Editorial Office (what we will refer to as "Icarus" mode) and final submission to Elsevier Publishing ("Elsevier" mode). These modes are not simple option switches (alas), but are purely conceptual. To change a particular `.tex` file from "Icarus" mode to "Elsevier" mode will require hand editing of the LATEX file.

It would be nice if the formats were compatible enough that simply giving different options to the `\documentclass` command or perhaps using different class files (while leaving the `.tex` file mostly alone) for the different modes would be possible. We couldn't find a way to easily do it. We have some ideas but they require a little more hardcore TEX programming that we're willing to do at the moment. If you know of a better way or have the time or inclination to tackle the problem, go to town and let us know. As a consequence, a fair amount of commenting out different portions of the template is required when changing between "Icarus" mode and "Elsevier" mode. We have tried to be as explicit as possible about that in this file, and to minimize sections where hand editing needs to be done.

2   WARNING!

This template file is in no way sanctioned or blessed by either the Icarus Editorial Office or Elsevier. Using it blindly is a *very bad* idea. We created it to make our own lives easier, and figured that other folks might benefit from it. This template is no substitute for reading the appropriate style and formatting guides provided by the Icarus Editorial Office and Elsevier, as they are subject to change. Don't blame us if the Icarus Editorial Office or Elsevier complains about your format.

3   Style Resources

The formatting requirements for submission to the Icarus Editorial Office can be found at Icarus's Guide for Authors (Icarus, 2005) There is also a handy example of Icarus style available (Icarus, 2004). Elsevier has an Icarus author gateway (Elsevier, 2005a) that leads to all kinds of good info, but for us, the LaTeX file guidelines (Elsevier, 2005b) are what we are after. That page has links to all of the Elsevier LaTeX files.

4   Frontmatter

The first big difference between the two formats is in the content before the paper even starts. The Icarus Editorial Office wants some count information and explicit author information (even though their Web form has you type it in separately during the submission process), in addition to the abstract and keywords on their own separate page.

There is no need for me to go into great lengths about it here. Open the `.tex` file that created this document and look near the beginning for comment sections labeled `ELSEVIER STUFF` and `ICARUS STUFF`, the comments should explain everything.

5 Tables and Figures

5.1 Placement

Aside from goofing around with the frontmatter stuff the biggest difference, and the most time-consuming, is the different styles of table and figure placement between "Icarus" mode and "Elsevier" mode.

Elsevier wants figures and tables intermingled with the text, located near where they are first referenced, as you would see them in a journal (surprise). The Icarus Editorial Office requires that all tables and figures appear after the "References" section.

This is a problem, there is no easy way to move the figures around without cutting and pasting. So while your TEX file is in "Icarus" mode you should place all of your tables and then all of your figures after the LATEX bibliography commands (As they are in this example file). When you get to the point of being in "Elsevier" mode, you'll have to take each table and figure and cut them from the end and paste them into the text in the appropriate places. This will be the most labor-intensive part of going from "Icarus" mode to "Elsevier" mode.

The Icarus Guide for Authors (Icarus, 2005) also indicates that "[p]laces where

figures and tables are to appear in the published paper should be marked in the margins of the manuscript if possible." We have never done this. This may be old language from when more of the publishing was done in-house, but it really isn't needed when you're just going to actually put the figures in the right place when you switch the file to "Elsevier" mode.

5.2   Table Line Spacing

"Icarus" mode requires that the tables be single-spaced, but the document as a whole and the figure captions should be double-spaced.

The Elsevier class file (`elsart.cls`) does not alter the spacing when you enter the table environment. So if you have used the `[doublespacing]` option to the `\documentclass` command above, the text of your tables will be doublespaced.

We have found that submitting double-spaced tables usually doesn't even get mentioned, and in the grand scheme of things, it is easier to just leave them double-spaced, and then they'll be single-spaced when you switch to "Elsevier" mode.

However, if you have really long tables, you may want them single-spaced. To do this, you'll have to add some LaTeX commands, and then remove them before going to "Elsevier" mode. This will require using a little trick to reset the spacing for the tables only. Since in "Icarus" mode, all of the tables are together, you can just enclose all of your table environments with these commands.

So here's how to do it:

```
%% --Tables--


{

\renewcommand{\baselinestretch}{1}

\small\normalsize


\begin{table}

. . .

. . .

\end{table}


}
```

The `%% --Tables--` is just there to remind you that this should go before your tables section, which should be after the bibliography stuff. The lone "{" indicates the start of an anonymous environment. It is within this opening bracket and the closing "}" that we want the altered spacing. The `\renewcommand{\baselinestretch}{1}` sets the single spacing, but LaTeX won't act on it until you change something. So we use `\small\normalsize` to change the text size down and then back up, and now LaTeX should properly recognize the new baselinestretch. Then you put all of your table environments, and terminate the anonymous environment with a lone "}", returning things to the state they were in before we started.

5.3 Figure Captions

The Icarus Guide for Authors (Icarus, 2005) indicates that after the tables, should come the figure captions, and then the figures. However, that seems to be a throwback from earlier times. Since it is so easy (and in our opinion so much more useful) for captions to be on the same page as their figures, we see no reason to artificially split them up. In fact the example of Icarus style (Icarus, 2004), seems to indicate as much.

The guide (Icarus, 2005) also talks about how "[e]ach figure should be identified with the author's name and figure number." Sure, we can understand figure number, that only makes sense, and LaTeX automatically takes care of that. But putting your name on each figure seems like something you did when you put a stack of paper through the post, and sheets could get lost from the stack at the Icarus end. Since the submission is all in one PDF file, we don't think that this is needed (in fact the paragraph that talks about that begins with "[a]t the time of submission of a hardcopy manuscript"). However, if you really want to, you can add your name to all of the Figure captions during "Icarus" mode, and then remove them during "Elsevier" mode, but don't you do enough busy-work already?

5.4 Good Figures

Good figures are hard to make, there's no question about it. However, When you make the decision to create a color figure, take some time to think about the colors that you use. We think that Light and Bartlein (2004) make a good case for not using the typical rainbow-spectrum color scheme (e.g. Fig. 1).

Just because you decide to use color doesn't mean that you need to use *all* of the colors. Don't confuse "pretty" with "meaningful".

No, this doesn't have anything to do with the details of Icarus versus Elsevier formats, but it gives us a figure to include, and a soapbox to stand on.

6 Summary

So there is probably way more text in this template file than is needed, and you'll have to delete large swaths of it just to get started on your own paper. Hopefully, it hasn't just been all meaningless filler text. Enjoy.

A Copyright Information

Does this mean that if you write a paper using this template that you are required by law to credit us and to release the paper under the same kind of Creative Commons license? No, it doesn't. Mostly for the same reasons that you don't credit the authors of LATEX when using their software to write papers. What it does do is allow anyone, even the Icarus Editorial Office or Elsevier, to take a copy of this template and modify it (or not), and place it on their web pages for folks to use.

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Acknowledgements

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Icarus. Icarus style example. On the Web, April 2004. URL `http://icarus.cornell.edu/information/Manuscript_Template.pdf`.

Helmut Kopka and Patrick W. Daly. *A Guide to LaTeX*. Addison-Wesley, third edition, 1999.

A. Light and P. J. Bartlein. The End of the Rainbow? Color

Schemes for Improved Data Graphics. *EOS Transactions*, 85: 385–391, October 2004. doi: 10.1029/2004EO400002. URL `http://geography.uoregon.edu/datagraphics/`.

Relevant Files from Elsevier

File Name	Author	Date	CVS		
			version	commit date	committer
template-harv.tex	SP	2001/01/05			
elsart.cls	Elsevier	©1994-2001	1.1	2004/03/18	iowen
elsart-harv.bst	SP	2001/07/25	1.1	2004/03/18	iowen

Table 1

These files can be found on Elsevier's Website (Elsevier, 2005b). This is a simple guide to see what versions of the files this template was modified from, and can be used with. The CVS tags are really the most useful for pinpointing versions of the file, you can find them by searching for the strings "$Header" or "$Id" in the files. In the comments of the file there were also some author and date information that could be used as well. Ultimately, just trying to compile this document will be the most telling.
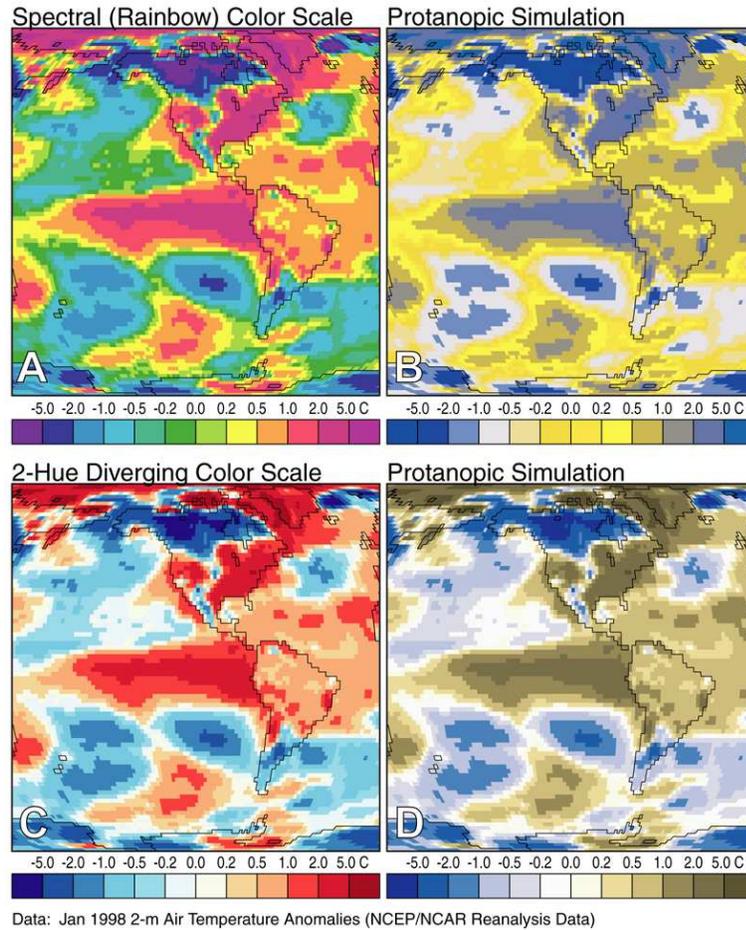
Fig. 1. This is Figure 1 of Light and Bartlein (2004). It is two-meter air temperature anomalies (i.e. differences from the 1971-2000 mean) for January 1998 (during a recent El Ninõ) using two differen color schemes. (A) Data using a saturated spectral scheme similar to those used by many geoscience authors; (B) A simulations of the spectral image as it might appear to individuals with protanopic vision, one of the most common types of color-vision deficiency in which the retina lacks red-sensitive cones; (C) The same data mapped using a red-white-blue diverging scale; and (D) The corresponding simulation for color-deficient readers. (NCEP/NCAR reanalysis data.)