

Waveoptics

FYS2150 Lab Report

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Abstract

This is a simple sample of a document created using \LaTeX (specifically `pdflatex`) that includes a figure from the Vergil visual editor for Ptolemy II that was created by printing to the Acrobat Distiller to get a PDF file. It also illustrates a simple two-column conference paper style, and use of `bibtex` to handle bibliographies.

1 Using \LaTeX with PDF Figures

This is a sample document for use with `pdflatex`, which is a program that is included with the MikTeX distribution

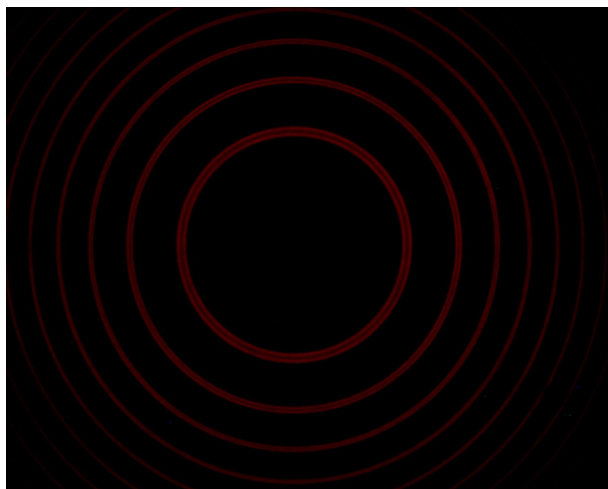


Figure 1: Figure caption. To get a figure to span two columns, use the environment `figure*` rather than `figure`.

that directly produces PDF files from \LaTeX sources. To run \LaTeX on this file, you need the following files:

1. `templatePDF.tex` (this file)
2. `figure.pdf` (the figure file)
3. `simpleConference.sty` (style file)
4. `refs.bib` (bibliography file)

To create a PDF file, execute the following commands:

1. `pdflatex templatePDF`
2. `bibtex templatePDF`
3. `pdflatex templatePDF`
4. `pdflatex templatePDF`

Yes (strangely) it is necessary to run `pdflatex` three times. The result will be a PDF file (plus several other files that \LaTeX produces). You will need a mechanism, of course, for executing commands on the command line. If you are using Windows, I recommend installing Cygwin and using its bash shell.

2 How to Include Vergil Diagrams as Figures

Suppose you wish to include a figure, like that in figure 1. The simplest mechanism is to install Adobe Acrobat, which includes a “printer” called “Acrobat Distiller.” Printing to this printer creates a PDF file, which can be included in a document as shown here. To include Ptolemy

If models [?], just print to the distiller from within Vergil and reference the PDF file in your \LaTeX document.

There is a bit more work to do, however. The file that is produced by the distiller represents a complete page, not the individual figure. You can open it in using Acrobat (version 5.0 or later), and select Document \rightarrow Crop Pages from the menu. In the resulting dialog, check “Remove White Margins.” Save the modified PDF file in a file and then reference it in the \LaTeX file as shown in this example.

An alternative is to generate EPS (encapsulated postscript), but the process is much more complex and fragile. I recommend using `pdflatex` and Adobe Acrobat.