## 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 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 (bibiliography 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 LaTeXproduces). 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.

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

To include Ptolemy II 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.