

**Physics 410/609—Computational Physics**  
**Exercise 1—Due Thursday, September 7, 2006**

- 1) Prepare a data file with one column of numbers  $\delta t$ . A range  $0.01 \leq \delta t \leq 0.5$  would be particularly convenient, but it is not required. Explain how you prepared the file.
- 2) Prepare a second data file with two columns of numbers. This file should contain  $\delta t$  and  $0.5\delta t^2$ . Show the commands you used to create the second data file.
- 3) Graph your data, preferably using gnuplot, with the  $x$ -axis properly labeled  $\delta t$  using a Greek symbol for  $\delta$ . You may label the  $y$ -axis as error. Put a title on the graph that is your name (first and last).
- 4) Graph the same data, but this time make a log-log plot. This is very easy to do using gnuplot.