Stat153 Project
(due on Wednesday, December 7)

The project will involve analyzing time series data, and writing a brief report.

First, you will need to choose a suitable time series. Choose a time series that

1. interests you,
2. is approximately stationary, or can easily be made approximately stationary,
3. is not too small—it should have at least 200 observations,
4. is a different time series from those chosen by everyone else in the class.

I encourage you to write a paragraph describing the time series data that you have chosen, and what questions you intend to address, and to email this proposal to `bartlett@stat.berkeley.edu` by Tuesday, November 22. If you do that, I can make suggestions before you spend too much time on the analysis.

The report should contain

1. A description of the data: what it is and where it came from.
2. What questions you are addressing.
3. A plot of the data.
4. An estimated ACF and PACF.
5. An estimated spectral density.
6. An ARMA model and some analysis of residuals.
7. A brief discussion of the results.

Try to keep the report brief (less than five pages). It is due on Wednesday, December 7. For course assessment, this project will count for two regular homework assignments (assuming we have six regular homework assignments in total, it will count for 2/8 of the 40% allocated to homeworks).