

**Problem Set 05**  
Linear Models – Fall 2015  
Due date: 2015-11-18

Problems sets are due at the start of class on the due date. Please hand write or type up and print the solutions; we will not accept e-mail solution sets except in exceptional circumstances. You may discuss problem sets with others, but must write up your own solutions. This means that you should have no need to look at other's final written solutions. Many of these problems come from a variety of textbooks, which are referenced in the problems. These are for citation purposes and not because you will need to consult the text itself (though you may feel free to do so).

This problem set comes courtesy of David Pollard, who put together a fantastic set of notes several years ago for his Linear Models course which guides you along the LARs path algorithm for solving the lasso. I have stored a copy of these here:

[http://euler.stat.yale.edu/~tba3/stat612/psets/pset06/pset06\\_dp.pdf](http://euler.stat.yale.edu/~tba3/stat612/psets/pset06/pset06_dp.pdf)

Following David's convention, you must at least hand in solutions to the questions with a (\*) next to them. The other questions are a bit harder and we will accept for extra credit.