



The University of Chicago  
Department of Statistics

Seminars for First Year Ph.D. Students

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**Regression Shrinkage and Selection and Introduction to Lasso**

**WEDNESDAY, May 27, 2009, at 6:00 PM**  
**110 Eckhart Hall, 5734 S. University Avenue**

**ABSTRACT**

The OLS estimates are not satisfied by scientific researchers because they usually have large variance and retain all the parameters, hence causing difficulty in interpretation. We briefly present two standard methods which improve the OLS estimates from two different perspectives: subset selection and ridge regression. However, these two standard methods also have their pros and cons. We finally introduce another technique called LASSO which enjoys the good features of the two methods aforementioned.

The material of this presentation is mainly from the paper, “Regression Shrinkage and Selection via the Lasso” by Robert Tibshirani, and the book, ‘Linear Regression Analysis by Seber and Lee.’