



THE UNIVERSITY OF
CHICAGO

Department of Statistics

SECOND YEAR PHD MINI SEMINARS

YUANCHENG ZHU

Department of Statistics
The University of Chicago

A Significance Test for the Lasso

THURSDAY, May 9, 2013, at 4:00 PM

110 Eckhart Hall, 5734 S. University Avenue

ABSTRACT

In the sparse linear regression setting, we consider testing the significance of the predictor variable that enters the current lasso model, in the sequence of models visited along the lasso path. A simple test statistic based on lasso fitted values, called covariance test statistic, is proposed. When the true model is linear, this statistic is shown to have an $\text{Exp}(1)$ asymptotic distribution under the null hypothesis (the null being that all truly active variables are contained in the current lasso model).

For information about building access for persons with disabilities, please contact Matt Johnston at 773.702-0541 or send an email to mhj@galton.uchicago.edu. If you wish to subscribe to our email list, please visit the following web site: <https://lists.uchicago.edu/web/arc/statseminars>.