THE UNIVERSITY OF CHICAGO

Department of Statistics

# SECOND YEAR PHD MINI SEMINARS

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## 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 Exp(1) asymptotic distribution under the null hypothesis (the null being that all truly active variables are contained in the current lasso model).


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