



DEPARTMENT OF STATISTICS  
COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK

Data Science Institute  
 COLUMBIA UNIVERSITY

JOINT COLLOQUIUM SERIES EVENT



*Robert Tibshirani*  
*Professor of Biomedical Data  
Science, and Statistics  
Stanford University*

**THURSDAY, MAY 4, 2017**  
**430PM-530PM | Davis Auditorium**  
**412 CEPSR, 530 West 120th Street**

LIGHT FARE AVAILABLE | OPEN TO THE PUBLIC | REGISTRATION NOT REQUIRED

## RECENT ADVANCES IN POST-SELECTION STATISTICAL INFERENCE

### ABSTRACT:

In this era of big data and complex statistical modeling, scientists use sophisticated computational tools to search through a large number of models, looking for meaningful patterns. The challenge is then to judge the strength of a large number of apparent associations that have been found. This statistical problem has become known as “Post-selection inference,” the assessment of significance and effect sizes from a data-set after mining the same data to find these associations. In this talk I will discuss new methods for computing p-values and confidence intervals in regression, that correctly account for the adaptive selection of the model.

This is joint work with Jonathan Taylor, Ryan Tibshirani, Will Fithian and Richard Lockhart.

Robert Tibshirani's main interests are in applied statistics, biostatistics, and data mining. He is co-author of the books *Generalized Additive Models* (with T. Hastie), *An Introduction to the Bootstrap* (with B. Efron), and *Elements of Statistical Learning* (with T. Hastie and J. Friedman). His current research focuses on problems in biology and genomics, medicine, and industry. With collaborator Balasubramanian Narasimhan, he also develops software packages for genomics and proteomics.

