



The University of Chicago  
Department of Statistics  
Seminar Series

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**MING GU**

Department of Mathematics  
University of California, Berkeley

## **Reduced Rank Regression via Convex Optimization**

**MONDAY, April 4, 2011, at 4:00 PM**

133 Eckhart Hall, 5734 S. University Avenue

*Refreshments following the seminar in Eckhart 110.*

### **ABSTRACT**

Reduced rank regression is a well-known technique for dimension reduction and coefficient estimation for multivariate linear regression. In this talk, we discuss the formulation of various reduced rank regression models, using convex optimization techniques; we also develop a general solution technique, based on spectral projection, to efficiently solve such problems. We present numerical results to demonstrate that our methods are vastly more efficient than existing methods for similar problems. In addition, we develop a realistic and profitable arithmetic trading system on the SP 500 index, with real data, using our reduced rank regression models.

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For further information and about building access for persons with disabilities, please contact Laura Rigazzi at 773.702.8333 or send email ([lrigazzi@galton.uchicago.edu](mailto:lrigazzi@galton.uchicago.edu)). If you wish to subscribe to our email list, please visit the following website: <https://lists.uchicago.edu/web/info/statseminars>.