

NYU Stern School of Business
Department of Information, Operations & Management Sciences
STATISTICS RESEARCH SEMINAR

TOPIC: L^2 Asymptotic Theory for High-Dimensional Data

SPEAKER: Wei Biao Wu (University of Chicago)

DATE: Monday, May 16th, 2016

TIME: 11:30 AM - 1:00 PM

PLACE: KMC 2-80

ABSTRACT

I will present an asymptotic theory for L^2 norms of sample mean vectors of high-dimensional data. An invariance principle for the L^2 norm is derived under conditions that involve a delicate interplay between the dimension p , the sample size n and the moment condition. Under proper normalization, central and non-central limit theorems are obtained. To perform the related statistical inference, I will propose a plug-in calibration method and a re-sampling procedure to approximate the distributions of the L^2 norms. The results will be applied multiple tests and inference of covariance matrix structures.

BIO

Wei Biao Wu is a Professor in the Department of Statistics at the University of Chicago. His research interests include probability theory, statistics, and econometrics. He is currently interested in high dimensional time series analysis. Professor Wu has received recognition for his research through the National Science Foundation Career Award National Science Foundation Research Grants, The Tjalling C. Koopmans Econometric Theory Prize (2009) and the Econometric Theory Multa Scripsit Award (2010). He received his Ph.D. degree in statistics from the University of Michigan-Ann Arbor in 2001 and joined the University of Chicago in 2001.

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