Department of Statistics

MASTER'S THESIS PRESENTATION

YUHUI NI

Department of Statistics
The University of Chicago

Application of Semiparametric Conditional Value-at-Risk to time series data

WEDNESDAY, February 20, 2019, at 1:00 PM
Jones 304, 5747 S. Ellis Avenue

ABSTRACT

Conditional Value-at-Risk(CVaR) is the most prominent risk measure in financial risk management. Parametric methods are subject to errors from mis-specification of the noise distribution. Nonparametric methods also suffer from bandwidth selection issue as well as "curse of dimensionality." We use semiparametric CVaR estimation and inference for parametric model with nonparametric noise to overcome above shortcomings. An application of this method to do estimation and bootstrap CI has been illustrated through Monte Carlo studies and NASDAQ index.