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MONDAY, MARCH 23, 2015
TALK: 4:15 PM — SCIENCE CENTER RM. 705
RECEPTION: 3:50 PM — SCIENCE CENTER, 7TH FLOOR

"Two Approaches of Analyzing Functional Time Series"

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ABSTRACT

Due to the advances of technology and data collection capability, there are more and more applications involving functional data observed over time. We propose two approaches of modeling the dynamics of functional time series. The first is to formulate the problem into a generalized state space model and use Sequential Monte Carlo method for inference and prediction. The second approach builds a convolutional functional autoregressive model with a nonparametric estimation procedure. Simulated and real applications on yield curve and implied volatility are presented.