



THE UNIVERSITY OF  
CHICAGO

Department of Statistics

MASTER'S THESIS PRESENTATION

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Simulation and Testing of Nonparametric Time Series on U.S.  
Treasury Yield Curve Rates and Value at Risk

THURSDAY, May 9, 2018, at 1:00 PM  
Jones 111, 5747 S. Ellis Avenue

ABSTRACT

This paper considers kernel estimation and regression functions of stationary processes. The selection of bandwidth depends on the conditions of short-range and long-range dependent processes. Besides, we also append a simultaneous test for the specification of the conditional mean and variance functions and the error distribution in nonlinear time series models. The theory is applicable to many financial and economic data. In particular, we show an asymptotic theory for kernel estimates of the value-at-risk (VaR) of the market value of an asset and U.S. Treasury yield curve rates.