



THE UNIVERSITY OF
CHICAGO

Department of Statistics
MASTER'S THESIS PRESENTATION

YUHUI FENG

Department of Statistics
The University of Chicago

**Quantile Curve Estimation for
Non-stationary Time Series**

WEDNESDAY, November 13, 2013, at 9:30 AM

110 Eckhart Hall, 5734 S. University Avenue

ABSTRACT

There is an increasing interest in studying the non-stationary time series and their time-varying quantiles. In this article, both parametric and nonparametric quantile curve estimation methods are discussed and a data-driven procedure for the selection of smoothing parameters is used in order to addressing the problem of quantile curve estimation for a wide class of non-stationary and/or non-Gaussian process. A Monte Carlo simulation is done to illustrate the method; and an application about the air pollution issue in Beijing is done to show the importance of analyzing quantiles.

For information about building access for persons with disabilities, please contact Matt Johnston at 773.702-0541 or send an email to mhj@galton.uchicago.edu. If you wish to subscribe to our email list, please visit the following web site: <https://lists.uchicago.edu/web/arc/statseminars>.