

GUANG ZHANG

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EDUCATION

Ph.D., Economics, Boston University, Boston MA, May 2021 (expected)

Dissertation Title: *Essays on nonlinear filtering and its application in finance*

Main advisor: Zhongjun Qu

Dissertation Committee: Zhongjun Qu, Pierre Perron and Jean-Jacques Forneron

M.S., Economics, University of Wisconsin, Madison, WI, 2015

M.A., Economics, Hitotsubashi University, Tokyo, JAPAN, 2012

B.A., Japanese, Xi'an International Studies University, Xi'an, CHINA, 2008

FIELDS OF INTEREST

Financial Econometrics, Quantitative Finance, Mathematical Finance

WORKING PAPERS

“Quasi Monte Carlo Kalman Filter for Nonlinear and Non-Gaussian State Space Models,”
Job Market Paper, September 2019.

“Pairs Trading with Nonlinear and Non-Gaussian State Space Models,” *submitted*, June 2020.

“Hermite Polynomial Based Valuation of American Options with General Jump-Diffusion Process,” (with Li Chen), September 2019.

“Maximum Likelihood Estimation and Inference of Continuous Time Regime Switching Models: with Application on Treasury Bill Rates Data,” (with Anlong Qin and Li Chen), October 2019.

WORK IN PROGRESS

“Generalized Finite Mixture Approximation of the Transition Density of Jump-diffusion Process”

“Spot-future Arbitrage and Market Efficiency: a Quantamental Approach”

“Pricing of American Option under Stochastic Volatility Models Based on Unscented Kalman filter”

“A k -means Clustering Estimator for Nonparametric GARCH Models”

“A Continuous Time GARCH (1,1) Model with Regime Switching: Formulation and Estimation” (with Li Chen)

FELLOWSHIPS AND AWARDS

Dean's Fellowship and Teaching Fellowship, BU, 2015-2020

WORK EXPERIENCE

Research Assistant, Department of Economics, Boston University, Fall 2017- Spring 2020

TEACHING EXPERIENCE

Teaching Assistant, Department of Economics, BU

EC303/304 Empirical Economic Analysis (BA level), Spring 2017, Fall 2019

EC203/204 Empirical Economics (BA level), Fall 2016

LANGUAGES

Native in Mandarin, Fluent in English and Japanese

COMPUTER SKILLS: Python, R, C++, JS, MATLAB, STATA

CITIZENSHIP/VISA STATUS: China/F1

REFERENCES

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