# Yan Liu

great-rainbow@ruri.waseda.jp

Department of Pure and Applied Mathematics, Graduate School of Fundamental Science and Engineering, Waseda University 3-4-1 Okubo, Shinjuku-ku, Tokyo 169-8555, Japan



China March 15, 1989 (+81) 80 5099 4790

## RESEARCH INTERESTS

Mathematical	(1) Asymptotic difference of the evaluation between i.i.d. and dependent variables
Statistics	(2) Sufficient conditions for CLT
	(3) Generalized CLT
	(4) Asymptotic expansion of statistics
Time Series	(1) Analysis on the linear process with infinity variance
Analysis	(2) Robust methods on the time series analysis
	(3) Estimation of the tail index of the innovation process
	(4) Time series analysis under non-regular case
Financial	(1) Theory of Optimal portfolio
Engineering	(2) Optimal portfolio under the multi-period model

#### **EDUCATION**

2013 -	Ph.D., Mathematical Statistics, Waseda University, Tokyo
2011—2013	Master of Science, Mathematical Statistics, Waseda University, Tokyo Thesis: Nonparametric Methods in Time Series Analysis Supervisor: Dr. Masanobu Taniguchi
2008 - 2011	Bachelor of Science, Applied Mathematics, Waseda University, Tokyo

## LANGUAGES

Chinese	Mother tongue
Japanese	Bilingual
English	Fluent
French	Some knowledge
Italian	Some knowledge

## GRANTS AND FELLOWSHIPS

2012 —	Member of the Mathematical Society of Japan
2013 - 2014	Member of Early Bird Program, "On the properties of tail index estimators by
	self-nomrlazed method", $\$700,000$

#### **PUBLICATIONS**

2013 Liu, "Asymptotic Moments of Symmetric Self-normalized Sums"

## Presentations

March 2013	Liu and Taniguchi, "Hypothesis Testing for Vector Stable Processes",
	the Mathematical Society of Japan, Kyoto University
May 2013	Liu, "Asymptotic Moments of Symmetric Self-normalized Sums",
	Project Research Seminar on Financial and Pension Mathematics,
	Waseda University

# CURRENT EMPLOYMENT AND TEACHING EXPERIENCE

2011 —	Teaching Assistant as a Mathematics Tutor in school of FSE, Waseda
2012 —	Teaching Assistant as a Statistics Tutor in school of ILS, Waseda
2010 —	Teaching Assistant as a English Tutor in school of CSE, Waseda

# Manuscripts in Progress

 ${\bf 1}\,$ Akashi, Liu and Taniguchi, "An Empirical Likelihood Approach for Symmetric  $\alpha\text{-stable Processes}$ "