Guanxing Fu

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Education

November 2014–May 2018, Phd student in Humboldt-Universität zu Berlin.

September 2011–June 2014, graduate student in Nankai University.

September 2007–June 2011, undergraduate student in Dalian University of Technology.

Employment

October 2019–Now, Research Fellow, Department of Mathematics, National University of Singapore.

October 2017–September 2019, Wissenschaftlicher Mitarbeiter (research fellow), Department of Mathematics, Humboldt-Universität zu Berlin (postdoc level since April 2018)

Research Interest

stochastic games especially mean field games;

stochastic control

financial mathematics

Publications

Guanxing Fu, Xizhi Su and Chao Zhou, Mean-Field Utility Maximization Game with Partial Information, ongoing, 2019.

Guanxing Fu, Ulrich Horst and Steven Kou, Mean-Field Interbank Markets, ongoing, 2019.

Guanxing Fu, Extended Mean Field Games with Singular Controls, arXiv:1909.04154, 2019.

Guanxing Fu and Ulrich Horst, Mean-Field Leader-Follower Games with Terminal State Constraint, arXiv:1809.04401, 2018, revised and resubmitted to SIAM Journal on Control and Optimization.

Guanxing Fu, Paulwin Graewe, Ulrich Horst and Alexandre Popier, A Mean Field Game of Optimal Portfolio Liquidation, arXiv:1804.04911, 2018, under revision at Mathematics of Operations Research.

Guanxing Fu and Ulrich Horst, Mean Field Games with Singular Controls, SIAM Journal on Control and Optimization, 55(6), 3833-3868, 2017.

Guanxing Fu, Ulrich Horst and Jinniao Qiu, Maximum Principle for Quasi-Linear Reflected BSPDE, Journal of Mathematical Analysis and Applications, 456(1), 307-336, 2017.

Dr. thesis: : Maximum Principle for Reflected BSPDE and Mean Field Game Theory with Applications, 2018, mit *Summa Cum Laude* (with the highest distinction)

Selected Presentation

Stochastic Analysis and Stochastics of Financial Markets Seminar, Humboldt-Universitaet zu Berlin, January, 2020;

NTU-NUS Joint Seminar on Math Finance, November 11, 2019, National Technological University;

International Congress on Industrial and Applied Mathematics, July 15-19, 2019, Valencia, Spain;

SIAM Conference on Financial Mathematics & Engineering, June 4-7, 2019, Toronto University, Canada (cancelled);

4th Berlin-Princeton-Singapore Workshop on Quantitative Finance, March 18-20, 2019, National University of Singapore;

10th World Congress of the Bachelier Finance Society, July 16-20, 2018, Trinity College, Dublin;

Berlin-Paris Young Researchers Workshop, Stochastic Analysis with applications in Biology and Finance, May 2-4, 2018, Institut des systémes complexes de Paris Ile de France

The 4th Young Researchers Meeting on BSDEs, Nonlinear Expectations and Mathematical Finance, April 23-27, 2018, Shanghai Jiao Tong University;

Stochastic Analysis and Stochastics of Financial Markets Seminar, Humboldt-Universitaet zu Berlin, December, 2017;

3rd Berlin-Princeton-Singapore Workshop on Quantitative Finance, April 19-22, 2017, Berlin;

2nd Berlin-Princeton-Singapore Workshop on Quantitative Finance, July 12-13, 2016, Princeton University;

7th European Congress of Mathematics, July 18-22, 2016, Berlin;

Grant

Travel grant to attend Workshop on Mean Field Games, 2017.08.28–2017.09.01, IPAM, UCLA.

Travel grant to attend METE–Mathematics and Economics: Trends and Explorations. A conference celebrating Mete Soner's 60th birthday and his contributions to Analysis, Control, Finance and Probability, 2018.06.0–2018.06.08, ETHZ.

Full Phd scholarship award from Berlin Mathematical School, 2014.10-2017.10.

Organized Workshops & Conferences

Local Organizer of the 3rd Berlin-Princeton-Singapore Workshop on Quantitative Finance, Apr. 19-22, 2017

Referee

AMS reviewer, referee for SIAM Journal on Control and Optimization, Mathematics and Financial Economics.

Teaching

- Tutor:

  Linear Algebra and Analytical Geometry I, Winter Semester 2017/2018.

  Stochastic Finance II, Summer Semester 2018.

  Stochastic Finance I, Winter Semester 2018/2019.

  Analysis for Information, Summer Semester 2019.

- Instructor: Introduction to Stochastic Partial Differential Equations, Summer Semester 2019 (together with Ulrich Horst).