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Faculty of Business and Commerce
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Date of birth: April 24, 1989
(34 year old)
Nationality: French

Employment

Keio University.

04/2020 – [FACULTY BUSINESS AND COMMERCE KEIO UNIVERSITY](#), Tokyo, Japan.
Associate professor.

04/2018 – [FACULTY BUSINESS AND COMMERCE KEIO UNIVERSITY](#), Tokyo, Japan.
03/2020 Tenured Assistant professor.

04/2016 – [FACULTY BUSINESS AND COMMERCE KEIO UNIVERSITY](#), Tokyo, Japan.
03/2018 Assistant professor.

University of Geneva.

04/2022 – [GENEVA FINANCE RESEARCH INSTITUTE](#).

02/2023 Visiting Faculty.

University of Cambridge.

12/2019 [FACULTY OF ECONOMICS](#).

Visiting Faculty.

Hong Kong University of Science and Technology.

06/2016 [DEPARTMENT OF INFORMATION SYSTEMS](#).

Visiting Faculty.

Education

09/2013 – [THE UNIVERSITY OF CHICAGO, DEPARTMENT OF STATISTICS](#).

03/2016 M.S. and Ph.D (Committee: Per Aslak Mykland, Dacheng Xiu, Dan Nicolae, Greg Lawler).

09/2010 – [ECOLE POLYTECHNIQUE](#), France.

08/2013 B.S. (Diplome d'Ingenieur) in Applied Mathematics.

09/2007 – [UNIVERSITE LYON 1](#), France.

06/2010 Licence in Applied Mathematics.

2007 [LYCEE VAUGELAS](#), Chambéry, France.

French scientific Baccalaureat.

Published/accepted papers

Estimation for high-frequency data under parametric market microstructure noise, with Simon Clinet. *Annals of the Institute of Statistical Mathematics*, 2021, 73, 649-669.

Cointegration in high frequency data, with Simon Clinet. *Electronic Journal of Statistics*, 2021, 15(1), 1263-1327.

Disentangling sources of high frequency market microstructure noise, with Simon Clinet. *Journal of Business & Economic Statistics*, 2021, 39(1), 18-39.

Local Parametric Estimation in High-Frequency Data, with Per Aslak Mykland. *Journal of Business & Economic Statistics*, 2020, 38(3), 679-692.

Testing if the market microstructure noise is fully explained by the informational content of some variables from the limit order book, with Simon Clinet. *Journal of Econometrics*, 2019, 209, 289-337.

Efficient Asymptotic Variance Reduction when Estimating Volatility in High Frequency Data, with Simon Clinet. *Journal of Econometrics*, 2018, 206, 103-142.

Statistical Inference for the Doubly Stochastic Self-exciting Process, with Simon Clinet. *Bernoulli*, 2018, 24(4B), 3469-3493.

Classifying Patents Based on their Semantic Content, with Antonin Bergeaud and Juste Raimbault. *PLoS ONE*, 2017, 12(4), e0176310.

Estimation of Integrated Quadratic Covariation with Endogenous Sampling Times, with Per Aslak Mykland, *Journal of Econometrics*, 2017, 197, 20-41.

Papers in revision

Estimation of latency with Hawkes processes, with Vladimir Volkov, Reject and Resubmit, *Journal of the American Statistical Association*.

Submitted/working papers

Approximation convergence in the inverse first-passage time problem. In revision to be submitted to *Bernoulli*.

High-frequency estimation of Ito semimartingale baseline for Hawkes processes, with Olivier Scaillet and Seunghyeon Yu. In revision to be submitted to the *Annals of Statistics*.

Estimation and Test of Branching Ratio for Hawkes processes, with Seunghyeon Yu.

Disentangling seasonality from a self-exciting process with time-varying baseline, with Olivier Scaillet and Seunghyeon Yu.

What drives latency in high-frequency trading?, with Olivier Scaillet and Vladimir Volkov.

Nonparametric estimation of generalized hazard function for first-hitting times, with Julian Kota Kikuchi. To be submitted to the *Journal of the American Statistical Association*.

Formula of boundary crossing probabilities by the Girsanov theorem. Submitted to *Bernoulli*.

Explicit formula of boundary crossing probabilities for continuous local martingales to constant boundary. Submitted to the *Advances in Applied Probability*/*Journal of Applied Probability*.

Noncausal Hawkes processes, with Kim Christensen and Aleksei Kolokolov.

Brownian motion conditioned to spend limited time outside a monotone function, with Martin Kolb and Dominic Schickentanz.

Kaplan-Meier estimation for cumulative functionals of distribution function with censored data, with Chang Yuan Li.

Testing for Ito-semmartingale against semi-martingale with noise, with Kim Christensen and Ulrich Hounyo.

Reviewer services

Econometrics: *Journal of Business & Economic Statistics*, *Journal of Econometrics*, *Journal of Financial Econometrics*, *Journal of Forecasting*.

Statistics: *Annals of Applied Statistics*, *Annals of Statistics*, *Annals of the Institute of Statistical Mathematics*, *Electronic Journal of Statistics*, *Journal of the American Statistical Association*, *Metrika*, *Statistica Sinica*.

Mathematics: *Journal of Applied Probability*, *Science China Mathematics*.

Finance: *International Journal of Theoretical and Applied Finance*, *Journal of Financial and Quantitative Analysis*, *Journal of Futures Markets*, *Quantitative Finance*.

Management: *Financial Management*, *Research Policy*.

Grants and fellowships

04/2023 – JSPS Grants-in-Aid for Scientific Research (B) "Duration models related problems in econometrics" (20K13470). *JPY17,290,000*.

03/2028

- 04/2022 – Fukuzawa fund (sabbatical abroad). *JPY3,000,000*.
- 03/2023
- 04/2020 – JSPS Grants-in-Aid for Early-Career Scientists "Econometric methods for high frequency data" (20K13470). *JPY4,290,000*.
- 03/2023
- 04/2020 – Internal grant from Keio University "Econometric methods for high frequency data". *JPY1,000,000*.
- 03/2021
- 04/2017 – JSPS Grants-in-Aid for Young Scientists B "Forecasting and model selection in time-varying parameter models" (17K13718). *JPY4,290,000*.
- 03/2020
- 04/2018 – Internal grant from Keio University "An empirical analysis to disentangle sources of high frequency market microstructure noise". *JPY1,000,000*.
- 03/2019
- 04/2016 – Internal grant from Keio University "Forecasting with time-varying parameter models". *JPY1,000,000*.
- 03/2017
- 2015 The Stevanovich Student Fellowship in Quantitative Finance by The Stevanovich Center for Financial Mathematics at the University of Chicago. *USD5,000*.
- 09/2013 – Grant from The University of Chicago, Department of Statistics.
- 03/2016
- 04/2013 – Student Exchange Support Program from Japan Student Services Organization (JASSO).
- 08/2013
- 09/2010 – Ecole Polytechnique's fellowship from French government.
- 08/2014

Membership

The Institute of Mathematical Statistics (IMS), The American Statistical Association, The Society for Financial Econometrics (SoFIE), The Econometric Society.

Lectures

- 2023
 - 12/18 The 16th International Conference of the ERCIM WG on CFE and Computational and Methodological Statistics (CFE-CMStatistics 2023), HTW Berlin University of Applied Sciences (organizer of a session entitled Duration data)
 - 10/11 Seminar at City University of Hong Kong College Business
 - 08/02-03 The 6th International Conference on Econometrics and Statistics (EcoSta 2023), Waseda University, Tokyo (organizer of a session entitled Hawkes processes in econometrics and statistics, chair of a session on survival analysis)
 - 07/01 (virtual) 2023 Asia Meeting of the Econometric Society at Tsinghua University, Beijing, China
 - 06/15& 17 Fifteenth Annual SoFiE Conference at Sungkyunkwan University, Seoul (one talk in the pre-conference presented by Seunghyeon Yu and one flash poster session presented by Vladimir Volkov).
- 2022
 - 12/18 The 15th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2022), King's College London
 - 12/09 33rd EC2 Conference, Econometrics of High Frequency Data & Factor Models, ESSEC Business School Paris (poster session)
 - 12/08 Capital Fund Management (CFM) Paris seminar
 - 12/06 Laboratoire Manceau de Mathématiques (LMM) Le Mans University seminar
 - 07/01 (virtual) Statistical Methods in Finance 2022 jointly hosted by Chennai Mathematical Institute, Indian Statistical Institute, and North Dakota State University
 - 06/20 (virtual) The 5th International Conference on Econometrics and Statistics (EcoSta 2022), Ryukoku University, Kyoto.

- 2021** 12/19 (virtual) 14th International Conference of the ERCIM WG on Computational and Methodological Statistics at King's College London 09/17 (virtual) Research Webinar Series at Decision Sciences Area, Indian Institute of Management Bangalore.
- 2019** 12/18 Mini workshop on Financial Econometrics at the University of Cambridge INET Institute 12/16 13th International Conference on Computational and Financial Econometrics at Senate House and Birkbeck University of London 06/27 The 3rd International Conference on Econometrics and Statistics (EcoSta 2019) at National Chung Hsing University, Taiwan 06/23 Nippon Finance Association 27th annual conference at Keio University 01/10 Mathematisches Seminar at Kiel University, Germany 07/04 Econometric Society Australasian Meeting at Auckland University of Technology.
- 2018** 06/22 Asian meeting of the Econometric Society at Sogang University, Seoul 06/21 The 2nd International Conference on Econometrics and Statistics (EcoSta 2018) at the City University of Hong Kong.
- 2017** 12/18 CMAP Ecole Polytechnique Seminar, Paris 11/28 Seminar at the Faculty of Business and Commerce (joint with the Econometrics workshop), Keio University 08/03 Joint Statistical Meetings in Baltimore, Maryland 07/26 SoFiE Financial Econometrics Summer School 2017 at Kellogg School of Management, Northwestern University, Chicago 06/20 Tenth Annual SoFiE Conference at NYU Stern School of Business 06/04 Asian meeting of the Econometric Society at The Chinese University of Hong Kong 03/15 Special Lecture and Workshop on Theory and Practice in Econometrics at Keio University 02/22 Workshop on Stochastic Models, Statistics and Their Applications, Humboldt-Universität zu Berlin.
- 2016** 12/15 The Quantitative Methods in Finance Conference, Sydney 12/12 Workshop on Portfolio dynamics and limit order books, Ecole Centrale Paris 09/09 Seminar at the Center for Mathematical Modeling and Data Science, Osaka University 07/08 6th International IMS-FIPS Workshop at the University of Alberta in Edmonton, Canada 06/13 Ninth Annual SoFiE Conference at City University of Hong Kong and GRU 04/25 ICS Hitotsubashi University Seminar 02/21 The Fourth Asian Quantitative Finance Conference (AQFC), the Osaka University Nakanoshima Center (Bachelier Finance conference) 01/21 IMES Bank of Japan Seminar 01/18 Hitotsubashi University Department of Economics Seminar 01/16 Keio University Department of Business and Commerce Seminar.
- 2015** 12/18 HU Berlin Statistics Seminar 11/10 Institute of Economic Studies, Keio University Econometrics Workshop 10/25 Conference on new developments of statistical science in various fields, Toyama Symposium 08/10 Hong Kong University Science and Technology Business School Seminar 08/07 The University of Tokyo Seminar on Probability and Statistics 08/04 Conference Frontiers in Financial Econometrics. Hosted by Hitotsubashi Institute for Advanced Studies and CFEE (Center for Financial Engineering Education) 07/31 Seminar Center for the Study of Finance and Insurance Osaka 07/30 Math-fi Seminar. Department of Mathematical Sciences, Ritsumeikan University.

Teaching

Estimating Volatility in High-Frequency Data (2023 Fall, 2021 Spring, 2020 Fall, 2019 Fall, 2018 Fall, 2017 Fall, 2016 Fall). Keio University.

Essentials of Regression Analysis Using R (2023 Fall, 2021 Spring, 2020 Spring, 2019 Spring, 2018 Spring). Keio University.

Zemi. (2020 Fall, 2020 Spring, 2019 Fall, 2019 Spring) Keio University.

Stochastic Calculus, An Introduction with Application (2020 Spring, 2019 Spring, 2018 Spring, 2017 Spring, 2016 Spring). Keio University.

Senkoenshu on time series (2019 Fall, 2018 Fall). Keio University.

Time Series Analysis (2017 Fall, 2016 Fall). Keio University.

2016 Winter TA STAT 33970/FINM 33170. The University of Chicago.

2015 Spring Instructor STAT 234. The University of Chicago.

2014 Fall TA STAT 220. The University of Chicago.

2014 Spring TA STAT 33970/FINM 33170. The University of Chicago.

2014 Winter TA STAT 234. The University of Chicago.

Students

02/2023 Seunghyeon Yu (Ph.D., now research scholar at Northwestern University).

08/2022 Julian Kota Kikuchi (B.S., now pre-doctoral program at the Federal Reserve Bank of Richmond).

08/2022 Renyi Qu (B.S., now Master in Data Science at University of Pennsylvania).

08/2021 Taro Tsuchiya (B.S., now Ph.D. student in C.S. at Carnegie Mellon University).

08/2020 Meihuazi Chen (B.S., now Business Analyst at Elements Global Services).

08/2020 Kentaro Asaba (B.S., now Trader at Societe Generale).

Language

French: native speaker.

English: fluent.

Japanese: very good level.

Italian: able to communicate.