

Emanuele Guidotti

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EDUCATION

Postdoc in Finance - USI Lugano Supervisor: <u>L. Fresard</u>	Since August 2023
PhD in Finance, University of Neuchâtel Supervisor: <u>T.A. Kroencke</u> Co-supervisor: <u>D. Ardia</u>	2019 — 2023
MSc in Finance, University of Milan Final evaluation: <i>summa cum laude</i> . Supervisor: <u>S.M. Iacus</u>	2015 — 2017
BSc in Physics, University of Milan Final evaluation: <i>summa cum laude</i> . Supervisor: <u>S.M. Iacus</u> and <u>A. Vicini</u>	2012 — 2015

RESEARCH INTERESTS

Financial markets, Data science, Artificial intelligence.

PUBLISHED PAPERS

“Efficient Estimation of Bid-Ask Spreads from Open, High, Low, and Close Prices”

D. Ardia, E. Guidotti, T.A. Kroencke

Journal of Financial Economics, vol. 161, pag. 103916, 2024 [[link](#)]

“Text Classification with Born’s Rule”

E. Guidotti, A. Ferrara

Advances in Neural Information Processing Systems, vol. 35, pag. 30990-31001, 2022 [[link](#)]

“calculus: High Dimensional Numerical and Symbolic Calculus in R”

E. Guidotti

Journal of Statistical Software, vol. 104(5), pag. 1-37, 2022. [[link](#)]

“A worldwide epidemiological database for COVID-19 at fine-grained spatial resolution”

E. Guidotti

Scientific Data, vol. 9(1), pag. 1-7. Nature Publishing Group, 2022. [[link](#)]

“COVID-19 Data Hub”

E. Guidotti, D. Ardia

Journal of Open Source Software, vol. 5(51), pag. 2376, 2020. [[link](#)]

“Are official confirmed cases and fatalities counts good enough to study the COVID–19 pandemic dynamics? A critical assessment through the case of Italy”

K. Bartoszek, E. Guidotti, S. Iacus, M. Okrój.

Nonlinear Dynamics, vol. 101(3), pag. 1951-1979. Springer, 2020. [[link](#)]

“A Model of Price Formation in Frictionless Markets”

E. Guidotti

SSRN, preprint. [[link](#)]

“Liquidity Premia and Bid-Ask Spreads: Evidence from 94 Years in the U.S. Stock Market”

D. Ardia, E. Guidotti, T.A. Kroencke

“Asymptotic expansion formulas for diffusion processes based on the perturbation method”

E. Guidotti, N. Yoshida

CONFERENCES AND SEMINARS

2024

Institute for Mathematical Statistics - Asia-Pacific Rim Meeting (IMS-APRM)

2023

Seminar at EPFL, Swiss Finance Institute

Seminar at Linköping University, Machine Learning Series (IDA)

Seminar at OST, Interdisciplinary Center for Artificial Intelligence (ICAI)

Seminar at University of Milan, Information Systems and Knowledge Management (ISLab)

2022

Conference on Neural Information Processing Systems (NeurIPS)

Annual Meeting of the Financial Management Association (FMA)

Annual Meeting of the European Finance Association (EFA)

International Conference on Quantitative Finance and Financial Econometrics (QFFE)

Seminar at HEC Montréal, Department of Finance

2021

International Conference on Computational and Methodological Statistics (CMStatistics)

Annual Financial Market Liquidity Conference (AFML)

International Risk Management Conference (IRMC)

Annual Meeting of the German Finance Association (DGF)

IUPAP Conference on Computational Physics (CCP)

Quantact Seminar

2020

International Conference on Computational and Methodological Statistics (CMStatistics)

Next Einstein Forum Global Gathering

European R Users Meeting (eRum)

2019

International Conference on Computational and Methodological Statistics (CMStatistics)

European Meeting of Statisticians (EMS)

2018

Seminar at the University of Tokyo, Graduate School of Mathematical Sciences

2017

International Conference on Computational and Methodological Statistics (CMStatistics)

Annual Meeting of the Association for Mathematics Applied to Social and Economic Sciences

R/Finance Conference

Seminar at the University of Tokyo, Graduate School of Mathematical Sciences

ACADEMIC VISITS

VISITING SCHOLAR, **HEC Montréal**, Department of Decision Sciences

May 2022

Host: [D. Ardia](#)

VISITING SCHOLAR, **University of Tokyo**, Mathematical Sciences

Non-consecutive 4 months
period between 2017 — 2018

Host: [N. Yoshida](#)

RESEARCH SOFTWARE

“COVID-19 Data Hub”

Total downloads: 260,000+. Data downloads: 6,230,000+. Links: [\[GitHub\]](#) [\[CRAN\]](#) [\[PyPI\]](#)

“bidask: Efficient Estimation of Bid-Ask Spreads from Open, High, Low, and Close Prices”

Total downloads: 16,000+. Links: [\[GitHub\]](#) [\[CRAN\]](#) [\[PyPI\]](#)

“bornrule: Classification with Born’s Rule”

Total downloads: 11,000+. Links [\[PyPI\]](#)

“calculus: High Dimensional Numerical and Symbolic Calculus in R”

Total downloads: 52,000+. Links: [\[GitHub\]](#) [\[CRAN\]](#)

“RblDataLicense: R Interface to Bloomberg Data License”

Total downloads: 52,000+. Links [\[GitHub\]](#) [\[CRAN\]](#)

“yuimaGUI: A Graphical User Interface for the yuima Package”

Total downloads: 29,000+. Links: [\[CRAN\]](#)

TEACHING

Deploying Machine Learning Models on Google Cloud Platform (Teaching) - *Master in Data Science for Economics*, University of Milan

2022 — 2024

Data Acquisition, Management, and Visualization (Teaching) - *Master in Data Science for Economics*, University of Milan

2020 — 2022

Coding for Data Science and Data Management (Co-Teaching), Text Mining and Sentiment Analysis (Co-Teaching) - *Master in Data Science for Economics*, University of Milan

2019 — 2020

Asset Pricing (TA), Portfolio Management (TA), Quantitative Methods for Finance (TA), Research in Financial Analysis (TA) - *Master in Finance*, University of Neuchâtel

2020 — 2023

GRANTS AND AWARDS

2024 — USI Grant in Open Research Data (CHF 50'000)
2022 — Neural Information Processing Systems (NeurIPS) Scholar Award
2022 — Mobility Scholarship, University of Neuchâtel
2022 — Fonds Gold Open Access, University of Neuchâtel
2021 — Google Cloud Research Credits
2020 — R Consortium ISC Grant Program
2020 — Institute for Data Valorization (IVADO) Research Grant

ACADEMIC SERVICE

Referee: The R Journal (2023); Scientific Data, Nature Publishing Group (2022).

OTHER EMPLOYMENT AND ADDITIONAL AFFILIATIONS

Japan Science and Technology Agency CREST	2017 — present
Partner at Algo Finance Sagl	2017 — present

PROGRAMMING

Proficient in Python, R, SQL, C++ / Shell scripting / Cloud computing / WRDS HPC

LANGUAGES

Italian (native), English (C1).