

Emanuele Guidotti

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EDUCATION

PhD Finance - Empirical Asset Pricing, University of Neuchâtel Supervisor: T.A. Kroencke	2019 — June 2023 (expected)
MSc Finance - Quantitative Finance, University of Milan Final evaluation: <i>summa cum laude</i> . Supervisor: S.M. Iacus	2015 — 2017
BSc Physics - General Physics, University of Milan Final evaluation: <i>summa cum laude</i> . Supervisor: S.M. Iacus and A. Vicini	2012 — 2015

DOCTORAL STUDIES

DOCTORAL STUDENTS PROGRAM (ECONOMETRICS), Study Center Gerzensee Final evaluation: 6.0/6.0. Teachers: M. Watson and B. Honoré	2019 — 2020
EMPIRICAL ASSET PRICING, École Polytechnique Fédérale de Lausanne (EPFL) Final evaluation: 6.0/6.0. Teacher: M. Rockinger	2019 — 2020
MACHINE LEARNING IN FINANCE, Politecnico di Milano (POLIMI) Teachers: M. Restelli and R. Baviera	2019 — 2020

ACADEMIC VISITS

VISITING SCHOLAR, HEC Montréal , Department of Decision Sciences Host: D. Ardia	May 2022
VISITING SCHOLAR, University of Tokyo , Mathematical Sciences Host: N. Yoshida	Non-consecutive 4 months period between 2017 — 2018

WORKING PAPERS

“Efficient Estimation of Bid-Ask Spreads from Open, High, Low, and Close Prices”
With [D. Ardia](#) and [T.A. Kroencke](#) (under review, **Journal of Finance**)

This paper formally derives an efficient estimator of the bid-ask spread from open, high, low, and close prices. The estimator is asymptotically unbiased and optimally combines the full set of price data to minimize the estimation variance. In absence of quote data, it delivers the most accurate estimates of bid-ask spreads theoretically, numerically, and empirically. The estimator is easy to calculate and has a broad applicability in empirical finance.

Seminars and Conferences: Annual Meeting of the European Finance Association (EFA 2022), Annual Meeting of the Financial Management Association (FMA 2022), International Conference on Quantitative Finance and Financial Econometrics (QFFE 2022), HEC Montréal, INSEAD Paris*, Goethe University Frankfurt*, New Zealand Finance Meeting (NZFM 2021), Annual Financial Market Liquidity Conference (AFML 2021), Annual Meeting of the German Finance Association (DGF 2021), International Risk Management Conference (IRMC 2021).

* denotes presentation by co-author

SSRN: <https://ssrn.com/abstract=3892335>

The paper appeared in the SSRN Top-10 most downloaded recent papers in a dozen of categories, including asset pricing, financial econometrics, and market microstructure.

PUBLISHED PAPERS

“Text Classification with Born’s Rule”

With [A. Ferrara](#)

(forthcoming in **Neural Information Processing Systems**, 2022) [[link](#)]

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

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

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

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

“COVID-19 Data Hub”

With [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”

With [K. Bartoszek](#), [S. Iacus](#), [M. Okrój](#).

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

RESEARCH SOFTWARE

“COVID-19 Data Hub”

Total downloads: 196,000+. Data downloads: 5,690,000+. Links: [[GitHub](#)] [[CRAN](#)] [[PyPI](#)]

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

Total downloads: 7,000+. Links: [[GitHub](#)] [[CRAN](#)] [[PyPI](#)]

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

Total downloads: 33,000+. Links: [[GitHub](#)] [[CRAN](#)]

“RblDataLicense: R Interface to Bloomberg Data License”

Total downloads: 33,000+. Links [[GitHub](#)] [[CRAN](#)]

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

Total downloads: 24,000+. Links: [[CRAN](#)]

“stc: Supervised Classification with Born’s Rule”

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

TEACHING

Asset Pricing (TA), Portfolio Management (TA), Quantitative Methods for Finance (TA), Research in Financial Analysis (TA) - <i>Master</i> in Finance, University of Neuchâtel	2020 — 2023
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Hackathon: Data Acquisition, Management, and Visualization (Teaching) - <i>Master</i> in Data Science for Economics, University of Milan	2021 — 2022
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Coding for Data Science and Data Management (Co-Teaching), Text Mining and Sentiment Analysis (Co-Teaching) - <i>Master</i> in Data Science for Economics, University of Milan	2019 — 2020
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RESEARCH INTERESTS

Financial markets, Data science.

GRANTS AND AWARDS

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: Scientific Data, Nature Publishing Group (2022).

Discussant: Annual Meeting of the German Finance Association (2021).

OTHER EMPLOYMENT AND ADDITIONAL AFFILIATIONS

Partner at Algo Finance Sagl	2018 — present
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Japan Science and Technology Agency CREST	2017 — present
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