

About

Associate Professor of Economics at METU and Associate Director at the Institute of Applied Mathematics. Research focuses on the intersection of Finance, Econometrics, Machine Learning, and Natural Language Processing, with applications to financial markets, sentiment analysis, and cryptocurrency markets.

Education

- 30/11/2011 **PhD in Economics**, Queen Mary, University of London, School of Economics and Finance.
PhD Title "Essays in Econometrics"
- 30/08/2009 **Master of Research (MRes) Finance and Economics**, London School of Economics and Political Science (LSE), Department of Finance.
- 30/08/2005 **MSc Economics**, University of Guelph, Department of Economics and Finance, Canada.
- 20/06/2004 **BSc Economics**, Marmara University, Faculty of Economics, Turkey.

Employment History

- 2025–Present **Associate Director**, METU, Institute of Applied Mathematics.
- 2025–Present **Associate Professor**, METU, Department of Economics.
- 2022–2025 **Associate Dean**, METU, Faculty of Economics and Administrative Sciences.
- 2020–2025 **Assistant Professor**, METU, Faculty of Economics and Administrative Sciences.
- 2020–2024 **Principal Investigator**, 2232 Outstanding Researcher Programme, TUBITAK.
Project: Machine Learning and Big Data in Finance in Turkey (550,000 Euros)
- 2013–2020 **Assistant Professor in Financial Economics**, City, University of London, Department of Economics.
Administrative Role: Year 2 Programme Leader for BSc Economics, BSc Financial Economics, and BSc Economics with Accounting degrees
- 2017–2018 **Deputy Head of the Department**, City, University of London, Department of Economics.
Lead departmental strategy and operations to achieve excellence in teaching and research
- 2012–2013 **Assistant Professor in Finance**, University of Essex, Essex Business School.
Administrative Role: Research Seminar Organizer
- 2011–2012 **Assistant Professor in Economics**, University of Surrey, School of Economics.
Administrative Role: Coordinator for the Economics Project

Journal Publications

- 2024 **Borsa Istanbul Review**, "Beyond polarity: How ESG sentiment influences idiosyncratic volatility in the Turkish stock market", 24(1), 10-21, **Q1, SSCI**.

- 2023 **Borsa Istanbul Review**, "*Exploring the Sentiment in Borsa Istanbul with Deep Learning*", 23(2), 84-95, **Q1, SSCI**.
- 2023 **Econometric Theory**, "*Specification Tests for Time-varying Coefficients Panel Data Models*", 41(1), 123-170, **Q1, SCI-Expanded**.
With T.Y. Tao, Y. Zhan, Q. Zhou
- 2023 **Journal of Applied Economics**, "*Functional Coefficient Quantile Regression Model with Time-varying Loadings*", 26(1), 2167151, **Q2, SSCI**.
With G. Montes-Rojas, J. Olmo
- 2013 **Economics Letters**, "*A Factor Approach to Realized Volatility Forecasting in the Presence of Finite Jumps and Cross-sectional Correlation in Pricing Errors*", 120(2), 224-228, **Q2, SSCI**.
With G. Kapetanios
- 2011 **Journal of Econometrics**, "*A Semiparametric Panel Model for Unbalanced Data with Application to Climate Change in the United Kingdom*", 164, 92-115, **Q1, SCI-Expanded**.
With O. Linton, Z. Xiao [Citations: 80+]

Journal Submissions Work in Progress

"Sentiment, Attention, and Cryptocurrency Jump Risk: A Textual Hawkes Model", with Oliver Linton, University of Cambridge

"Unveiling Endogeneity: Price Dynamics of Non-Green Cryptocurrencies Amidst Digital Currency Surge and Environmental Concerns", with Oliver Linton, University of Cambridge

"Information Disclosures, Default Risk, and Bank Value", with Ilknur Zer, Federal Reserve Board, Washington, D.C.

"ESG Developments Over Time Using Big Data"

"Visualising Shifting Correlations in the Cryptocurrency Market"

"Wrong Way Risk: a Unique Approach for Calibration"

"Opacity: What do Banks Hide?"

Other Publications

- 2023 **Book: Econometric Analysis of Cryptocurrency Volatility: A Heterogeneous Autoregressive Approach**, *Gazi Prints, Ankara*.
- 2012 **UK Government Office for Science Foresight Project**, "*The Future of Computer Trading on Financial Markets*", *Driver Review Documents*, joint with Oliver Linton.

Funding/Awards

- 2020 International Fellowship for Outstanding Researchers, an award worth 550,000 Euros by the Scientific and Technological Research Council of Turkey.
- 2019 Gregory Chow Best Paper Award 2019 CES NA Annual Conference, April 6-7, Lawrence, University of Kansas.
- 2012 The Future of Computer Trading on Financial Markets, UK Government Office for Science Foresight Project, 25,000 Pounds.

Teaching Experience

Middle East Technical University (2020–Present)

Graduate Time Series Analysis, Econometrics, Financial Econometrics

Undergraduate Econometrics, Quantitative Finance, Machine Learning in Economics and Finance

City, University of London (2013–2019)

Graduate Quantitative Methods, Econometrics, Quantitative Finance with Matlab, Research Methods

Undergraduate Corporate Finance, Econometrics

University of Essex (2012–2013)

Graduate Mathematics, MBA Quantitative Data Analysis, Financial Research, Empirical Methods in Finance

University of Surrey (2011–2012)

Undergraduate Financial Economics, Corporate Finance

Guest Lectures

2010 Microeconomics, Imperial College London

2008–2011 Mathematics, Statistics, Econometrics, Dynamic Macroeconomics, Queen Mary, University of London

2008 MBA Advanced Data Analysis, University of Cambridge, Judge Business School

Conference Presentations

2024 47th EBES Conference - Berlin, Germany

2023 45th EBES Conference - Budapest, Hungary

2023 42nd EBES Conference - Madrid, Spain

2023 42nd EBES Conference - Lisbon, Portugal

2021 4th International Conference on Econometrics and Statistics - Hong Kong, China

2021 European Economics and Finance Society 19th Annual EEFS Conference - London, UK

2019 13th International Conference on Computational and Financial Econometrics - London, UK

2019 European Meeting of the Econometric Society - Manchester, UK

2019 International Symposium on Forecasting, Thessaloniki - Greece

2019 The North American Summer Meeting of the Econometric Society (NASMES 2019) - Washington, DC., USA

2017 Asian Meeting of the Econometric Society - Hong Kong, China

2017 11th International Conference on Computational and Financial Econometrics - London, UK

2017 22nd EBES Conference - Rome, Italy

2016 10th International Conference on Computational and Financial Econometrics - London, UK

2016 The Ioannina Meeting on Applied Economics and Finance - Greece

2016 19th EBES Conference - Istanbul, Turkey

2010 4th International Conference on Computational and Financial Econometrics - London, UK

2010 16th International Conference on Panel Data - Amsterdam, NL

2008 Forecasting in Rio - Rio de Janeiro, Brazil

Computer Skills

Software MATLAB, PYTHON, STATA, E-VIEWS, R, LATEX, DATASTREAM, REUTERS, BLOMBERG