RAFFAELE MATTERA

Sapienza University of Rome, email: raffaele.mattera@uniroma1.it
Google Scholar ⋄ ResearchGate ⋄ Scopus ⋄ Google Sites

CURRENT POSITION

Assistant Professor in Statistics 2023 - Current
Sapienza University of Rome, Department of Social and Economic Sciences

PREVIOUS POSITIONS

Research Fellow in Statistics 2022 - 2023
Sapienza University of Rome, Department of Social and Economic Sciences

EDUCATION

Ph.D. in Economics 2018 - 2022
University of Naples "Federico II"
Thesis title "Essays in statistical methods for asset allocation"
Supervisors: Germana Scepi & Giovanni Walter Puopolo

Financial Time Series and High Frequency Econometrics July 2019
Summer School of the Italian Econometric Association (SIdE)

Master in Economics & Finance (MEF) 2018 - 2019
University of Naples "Federico II"

Master's Degree in Finance 2016 - 2018
University of Naples "Federico II"

Eramus+ Program 2017
University of Cyprus

Bachelor's Degree in Economics 2013 - 2016
University of Naples "Federico II"

SKILLS

Computer skills	R, MATLAB, STATA, EViews, LaTeX, MS Office
Language	Italian (mother tongue), English (advanced)

RESEARCH INTERESTS

Time Series Analysis, Spatiotemporal Modelling, Cluster Analysis, Forecasting, Econometrics

RESEARCH ACTIVITY (SELECTION)

Journals

(2023) Clustering networked funded European research activities through rank-size laws (with Cerqueti, R. and Iovanella, A.). Annals of Operations Research. Forthcoming. **I.F. 4.85 (Q1)**

(2023) Fuzzy clustering with entropy regularization for interval-valued data with an application to scientific journal citations. (with D'Urso, P., De Giovanni, L., Alaimo, L. & Vitale, V.). Annals of Operations Research. Forthcoming. **I.F. 4.85 (Q1)**

(2023) Shrinkage estimation with reinforcement learning of large variance matrices for portfolio selection. (with Mattera, G.). Intelligent Systems with Applications, 17, 200181. **SJR 4.5 (Q1)**

(2023) Fuzzy clustering of time series with time-varying memory (with Cerqueti, R.). International Journal of Approximate Reasoning, 153, 193-218 **I.F. 3.82 (Q1)**

(2022) Multiway clustering with time-varying parameters (with Cerqueti, R. & Scepi, G.). Computational Statistics, 1–42. **I.F. 1.40 (Q2)**

(2022) Well-being analysis of Italian provinces with Spatial Principal Components (with Giacalone, M. & Nissi, E.). Socio-Economic Planning Sciences, 84, 101377. **I.F. 4.92 (Q1)**

(2022) Mixed frequency composite indicators for measuring public sentiment in the EU (with Misuraca, M., Scepi, G. & Spano, M.). Quality & Quantity, 1-26. **I.F. 1.07 (Q2)**

(2022) A weighted approach for spatio-temporal clustering of COVID-19 spread in Italy. Spatial and Spatio-temporal Epidemiology, 41, 100500. **I.F. 1.63 (Q1)**

(2022) Weighted score-driven fuzzy clustering of time series with a financial application (with Cerqueti, R., D'Urso, P., De Giovanni, L. & Giacalone, M.). Expert Systems with Applications, 198, 116752. **I.F. 6.95 (Q1)**

(2022) A Composite Index for Measuring Stock Market Inefficiency (with Di Sciorio, F. & Trinidad-Segovia, J.). Complexity, 9838850. 1–13. **I.F. 2.83 (Q2)**

(2021) Forecasting binary outcomes in soccer. Annals of Operations Research, 1-24. **I.F. 4.85 (Q1)**

(2021) Model-based fuzzy time series clustering of conditional higher moments (with Cerqueti, R. & Giacalone, M.), International Journal of Approximate Reasoning, 134, 34-52. **I.F. 3.82 (Q1)**

(2021) Distribution-based entropy weighting clustering of skewed and heavy-tailed time series (with Giacalone, M. & Gibert Oliveiras, K.). Symmetry, 13 (6), 1-28. **I.F. 2.71 (Q2)**

(2020) Skewed non-Gaussian GARCH models for cryptocurrencies volatility modelling (with Cerqueti R. & Giacalone M.), Information Sciences, 527, 1-26. **I.F. 6.79 (Q1)**

(2020) Economic indicators forecasting in presence of seasonal patterns: time series revision and prediction accuracy (with Giacalone M. & Nissi, E.), Quality & Quantity, 54(1), 67-84. **I.F. 1.07 (Q2)**

(2018) Multicollinearity in regression: an efficiency comparison between Lp-norm and least squares estimators (with Giacalone M. & Panarello, D.), Quality & Quantity, 52(4), 1831-1859. **I.F. 1.07 (Q2)**

Book chapters & conference proceedings

(2023) Frequency domain clustering: an application to time series with time-varying parameters (with Scepi, G.). Studies in Theoretical and Applied Statistics, 219-238, Springer.

(2022) Forecasting VIX with Hurst exponent (with Bianchi, S. & Di Sciorio, F.). MAF 2022: Mathematical and Statistical Methods for Actuarial Sciences and Finance, 90–95, Springer.

CONFERENCE AND SEMINAR PRESENTATIONS

67th EWGCFM Meeting (CFM) - Rome, Italy 2023
51th Italian Statistical Society annual meeting (SIS21) - Caserta, Italy 2022
10th Meeting of the Statistics for the Evaluation and Quality of Services Group (IES22) - Capua, Italy 2022
Mathematical and Statistical Methods for Actuarial Sciences and Finance (MAF22) - Salerno, Italy 2022
14th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMS2021) - London, UK *(Invited)* 2021
50th Italian Statistical Society annual meeting (SIS21)- Pisa, Italy 2021
OICA Conference - University of Lyon, France 2020
Italian Statistical Society annual meeting (SIS19) - Milan, Italy *(Invited)* 2019
International Conference on Applied Statistics - Brasov, Romania 2017

COMMITTEE MEMBER OF CONFERENCES AND WORKSHOPS

International Workshop "AVANCES EN ECONOMÍA Y EMPRESA"
Almería, Spain. June 6-7th, 2022. (Scientific)

ASEPELT2022: Advances in Quantitative Methods for Finacial Markets
Almería, Spain. February 17-18th, 2022. (Scientific)
JADT2022: 16th International Conference on Statistical Analysis of Textual Data
Naples, Italy. July 6-8th, 2022. (Organizing)
DIAS 2022: International Conference on Sustainability Analysis (ICSA)
Rome, Italy. July 14-15th, 2022. (Organizing)

EDITORIAL ACTIVITY

Associate Editor of Humanities and Social Sciences Communications 2022 - Current

REVIEWER FOR

Advances in Data Analysis and Classification, International Journal of Approximate Reasoning, IEEE Transactions on Artificial Intelligence, Annals of Operations Research, Information Sciences, Expert Systems with Applications,Social Indicators Research,Socio-Economic Planning Sciences, Empirical Economics, Journal of Applied Statistics, PLOS ONE, Quality & Quantity, Financial Innovation, Econometrics, Forecasting, Economics Bulletin, Journal of Sustainable Finance & Investment, Resource Policy, Journal of Risk and Financial Management

SCIENTIFIC SOCIETIES

Commodity & Energy Markets Association (CEMA)	2023 - Current
Italian Statistical Society (SIS)	2022 - Current
Spatial Econometrics Association (SEA)	2022 - Current
Italian Econometric Association (SIdE)	2019 - Current

EXTERNAL REFEREE AND COMMITTEE MEMBER (PH.D.)

Javier Sanchez Garcia 2023
University of Almeria, Spain

Maria de Las Nieves Lopez Garcia 2022
University of Almeria, Spain

TEACHING EXPERIENCE

Lecturer in Statistics (Undergraduate)
Sapienza University of Rome, Italy
a.y. 2022/2023
Lecturer in Multidimensional Analysis for Social Sciences (Ph.D.)
Sapienza University of Rome, Italy
a.y. 2021/2022, 2022/2023

Visiting Lecturer in Statistical Computing (Ph.D.)
University of Almeria, Spain
a.y. 2022, 2023
Teaching Assistant in Statistics (Undergraduate)
Sapienza University of Rome, Italy
a.y. 2021/2022, 2022/2023
Teaching Assistant in Time Series Analysis (Undergraduate)
University of Napes "Federico II", Italy
a.y. 2019/2020, 2020/2021, 2021/2022, 2022/2023
Teaching Assistant in Statistical Methods for Economics (Graduate)
University of Napes "Federico II", Italy
a.y. 2021/2022
Teaching Assistant in Risk and Uncertainty (Undergraduate)
Ca' Foscari University of Venice, Italy
a.y. 2020/2021