Stefano Peluso

Contact Information

Department of Statistics and Quantitative Methods, Università degli Studi di Milano-Bicocca, Via Bicocca degli Arcimboldi 8, 20126 Milan (Italy). Email: stefano.peluso@unimib.it

Academic Positions

- Mar 2020 - Today: Associate Professor in Statistics. Università degli Studi di Milano-Bicocca, Department of Statistics and Quantitative Methods, Milan (Italy)
- Sept 2015 - Feb 2020: Assistant Professor in Statistics. Università Cattolica del Sacro Cuore, Department of Statistical Science, Milan (Italy)

Education

- Jul 2015: PhD in Economics. Università della Svizzera italiana, Swiss Finance Institute, Lugano (Switzerland). Thesis: "Parametric and Nonparametric Bayesian Methods in Finance". Jury: Prof. A. Mira (thesis advisor), Prof. G. Barone-Adesi (thesis coadvisor), Prof. P. Muliere (external member)
- Dec 2007: Master of Science in Finance. Bocconi University, Milan (Italy). Final Grade: 110/110 cum laude. Thesis: "The Use of High Frequency Data In GARCH Predictions: Application To The Italian Case". Thesis advisor: Prof. C.A. Favero
- Jul 2005: Bachelor in Business Administration. Bocconi University, Milan (Italy). Final grade: 110/110 cum laude. Thesis: "A Survey on Financial Markets Microstructure". Thesis advisor: Prof. B. Rindi

Teaching

- Mar 2023 - Jun 2024: Principal instructor in BSc course Probability and Statistical Inference (48h). Università degli Studi di Milano-Bicocca, Milan (Italy)
- Sep 2022 - Dec 2023: Principal instructor in MSc course Statistical Models (42h). Università degli Studi di Milano-Bicocca, Milan (Italy)
- Mar 2022 - Jun 2024: Principal instructor in MSc course Machine Learning (28h). Università degli Studi di Milano-Bicocca, Milan (Italy)
- Mar 2021 - Jun 2021: Principal instructor in BSc course Metodi Statistici per l'Amministrazione delle Imprese (42h). Università degli Studi di Milano-Bicocca, Milan (Italy)
- Sep 2020 - Dec 2021: Principal instructor in MSc course Complex Data Analysis (42h). Università degli Studi di Milano-Bicocca, Milan (Italy)
- Mar 2020 - Jun 2022: Principal instructor in BSc course Statistica I (40h). Università degli Studi di Milano-Bicocca, Milan (Italy)
- Jun 2019: Instructor in Mathematics PhD course Bayesian methodology and (Markov chain) Monte Carlo simulation (8h). Università degli Studi dell'Insubria, Como (Italy)
- Jan 2018 - Mar 2020: Principal instructor in MSc course Computational Statistics (60h). Università Cattolica del Sacro Cuore, Milan (Italy)
- Sept 2017 - Dec 2019: Principal instructor in BSc course Statistics (60h). Università Cattolica del Sacro Cuore, Milan (Italy)
- Sept 2017: Instructor in Postgraduate course Bayesian Methods in Economics and Finance (8h). S.A.DI.BA. - Scuola di automazione per dirigenti bancari, Perugia (Italy)
- May 2017: Instructor in Mathematics PhD course Bayesian methodology and (Markov chain) Monte Carlo simulation (8h). Università degli Studi dell'Insubria, Como (Italy)
- Feb 2017 - May 2017: Principal instructor in Master course Statistics and Probability (20h). Università Cattolica del Sacro Cuore, Milan (Italy)
- Mar 2017: Instructor in Finance PhD course Bayesian methodology and (Markov chain) Monte Carlo simulation for financial applications (8h). Università della Svizzera italiana, Lugano (Switzerland)

- Jan 2017 - Feb 2020: Principal instructor in Master course Statistics and Probability (42h). Università Cattolica del Sacro Cuore, Milan (Italy)
- Sept 2015 - Dec 2016: Principal instructor in BSc course Applied Statistics (20h). Università Cattolica del Sacro Cuore, Milan (Italy)
- Sept 2015 - Sept 2016: Principal instructor in MSc course Probability and Statistics (20h). Università Cattolica del Sacro Cuore, Milan (Italy)
- Sept 2015 - Jan 2017: Teaching assistant in BSc course Statistica I (24h). Università Cattolica del Sacro Cuore, Milan (Italy)
- May 2015: Teaching assistant in Finance PhD course Bayesian methodology and (Markov chain) Monte Carlo simulation for financial applications (8h). Università della Svizzera italiana, Lugano (Switzerland)
- Sept 2010 - Jan 2015: Teaching Assistantship in MSc courses of probability and statistics. Università della Svizzera italiana, Lugano (Switzerland)

Research Interests

Bayesian Statistics, Graphical Models, Bayesian Nonparametrics, High Frequency Finance

Journal Publications

- Ravenda, P., Cesarini, M., Peluso, S. and Mira, A. (2024). A Spatio-Temporal Neural Network to Forecast COVID-19 Counts. International Journal of Data Science and Analytics. DOI: 10.1007/s41060-024-00525-w
- Castelletti, F. and Peluso, S. (2024). Bayesian learning of network structures from interventional experimental data. Biometrika, 111:195-214. DOI: 10.1093/biomet/asad032. Code available here
- Giacobbe, D.R., Marelli, C., Mora, S., Guastavino, S., Russo, C., Brucci, G., Limongelli, A., Vena, A., Mikulska, M., Tayefi, M., Peluso, S. Signori, A., Di Biagio, A., Marchese, A., Campi, C., Giacomini, M. and Bassetti, M. (2023). Early diagnosis of candidemia with explainable machine learning on automatically extracted laboratory and microbiological data: results of the AUTO-CAND project. Annals of Medicine (Elevate). DOI: 10.1080/07853890.2023.2285454
- Denti, F., Peluso, S., Guindani, M. and Mira A. (2023). Multiple hypothesis screening using mixtures of non-local distributions with applications to genomic studies. Statistics in Medicine. DOI: 10.1002/sim.9705
- Castelletti, F. and Peluso, S. (2022). Network Structure Learning under Uncertain Interventions. Journal of the American Statistical Association, 118:2117-2128. DOI: 10.1080 / 01621459.2022.2037430. Code available here
- Beretta, E. and Peluso, S. (2022). Gold and bubbles: an impossible binomial? A review of historical and current evidence. Applied Economics Letters, 29:272-276. DOI: 10.1080/13504851.2021.1897070
- Castelletti, F. and Peluso, S. (2021). Equivalence Class Selection of Categorical Graphical Models. Computat. Stat. and Data Analysis, 164:107304. DOI: 10.1016/j.csda.2021.107304
- Donelli, N., Mira, A. and Peluso, S. (2021). A Bayesian Semiparametric Vector Multiplicative Error Model. Computational Statistics and Data Analysis, 161:107242. DOI: 10.1016/j.csda.2021.107242
- Arfè, A., Peluso, S. and Muliere, P. (2021). The Semi-Markov Beta-Stacy Process: a Bayesian non-Parametric Prior for Semi-Markov Processes. Statistical Inference for Stochastic Processes, 24:1-15. DOI: 10.1007/s11203-020-09224-2
- Buccheri, G., Corsi, F. and Peluso, S. (2021). High-Frequency Lead-Lag Effects and Cross-Asset Linkages: A Multi-Asset Lagged Adjustment Model. Journal of Business and Economic Statistics, 39:605-621. DOI: 10.1080/07350015.2019.1697699
- Peluso, S. and Consonni, G. (2020). Compatible Priors for Model Selection of High-Dimensional Gaussian DAGs. Electronic Journal of Statistics, 14:4110-4132. DOI: 10.1214/20-EJS1768
- Castelletti, F., Peluso, S., Stingo, F., La Rocca, L. and Consonni, G. (2020). Bayesian Learning of Multiple Directed Networks from Observational Data. Statistics in Medicine, 30:4745-4766. DOI: 10.1002/sim.8751

- Auricchio, A., Peluso, S., Caputo, M.L, Reinhold, J., Benvenuti, C., Burkart, R., Cianella, R., Klersy, C., Baldi, E. and Mira, A. (2020). Spatio-Temporal Prediction Model of Out-of-Hospital Cardiac Arrest: Designation of Medical Priorities and Estimation of Human Resources Requirement. PLoS ONE 15(8): e0238067. DOI: 10.1371/journal.pone.0238067.
- Petrakis, N., Peluso, S., Fouskakis, D. and Consonni, G. (2020). Objective Methods for Graphical Structural Learning. Statistica Neerlandica, 74:420-438. DOI: 10.1111/stan.12211
- Bianchi, F., Bartolucci, F., Peluso, S. and Mira, A. (2020). Longitudinal Networks of Dyadic Relations Using Latent Trajectories: Evidence from the European Interbank Market. Journal of the Royal Statistical Society, Series C, 69:711-739. DOI: 10.1111/rssc.12413. Code here
- Peluso, S., Mira, A., Rue, H., Tierney, N.J., Benvenuti, C., Cianella, R., Caputo, M.L. and Auricchio, A. (2020). A Bayesian Spatio-Temporal Statistical Analysis of Out-of-Hospital Cardiac Arrests. Biometrical Journal, 62:1105-1119. DOI: 10.1002/bimj.201900166
- Peluso, S., Mira, A. and Muliere, P. (2019). Conditionally Gaussian Random Sequences for an Integrated Variance Estimator with Correlation between Noise and Returns. Applied Stochastic Models in Business and Industry, 35:1282-1297. DOI: 10.1002/asmb.2476
- Peluso, S., Chib, S. and Mira, A. (2019). Semiparametric Multivariate and Multiple Change-Point Modeling. Bayesian Analysis, 14:727-751. DOI: 10.1214/18-BA1125. Code here
- Tierney, N.J, Mira, A., Reinhold, J., Arbia, G., Clifford, S., Auricchio, A. Moccetti, T., Peluso, S. and Mengersen, K.L. (2019) Evaluating Health Facility Access Using Bayesian Spatial Models and Location Analysis Methods. PLoS ONE, 14:e0218310. DOI: 10.1371/journal.pone.0218310
- Auricchio, A., Gianquintieri L., Caputo, M.L., Burkart, R., Benvenuti, C., Muschietti, S., Peluso, S., Mira, A. and Moccetti, T. (2019). Real-Life Time and Distance Covered by Lay First Responders Alerted by means of Smartphone Application: Implications for Early Initiation of Cardiopulmonary Resuscitation and Access to Automatic External Defibrillators. Resuscitation. DOI: 10.1016/j.resuscitation.2019.05.023
- Arfè, A., Peluso, S. and Muliere, P. (2018). Reinforced Urns and the Subdistribution Beta-Stacy Process Prior for Competing Risks Analysis. Scandinavian Journal of Statistics, 46:706-734. DOI: 10.1111/sjos.12369. Code available here
- Castelletti, F., Consonni, G., Della Vedova, M. and Peluso, S. (2018). Learning Markov Equivalence Classes of Directed Acyclic Graphs: an Objective Bayes Approach. Bayesian Analysis, 13:1231-1256. DOI: 10.1214/18-BA1101. Code available here
- Pistoni, A., Arcari, A. and Peluso, S. (2018). The Role of Managerial Control in Innovation Processes: an Empirical Analysis among Italian Firms. International Journal of Business Performance Management, 19:349-370. DOI: 10.1504/IJBPM.2018.092760
- Peluso, S., Mira, A. and Muliere, P. (2017). Learning vs Earning Trade-Off with Missing or Censored Observations: the Two-Armed Bayesian Nonparametric Beta-Stacy Bandit Problem. Electronic Journal of Statistics, 11:3368-3406. DOI: 10.1214/17-EJS1342
- Consonni, G., La Rocca, L. and Peluso, S. (2017). Objective Bayes Covariate-Adjusted Sparse Graphical Model Selection. Scandinavian Journal of Statistics, 44:741-764. DOI: 10.1111/sjos.12273. Code available here
- Peluso, S., Mira, A. and Muliere, P. (2017). Robust Identification of Highly Persistent Interest Rate Regimes. International Journal of Approximate Reasoning, 83:102-117. DOI: 10.1016/j.ijar.2017.01.004
- Peluso, S., Mira, A. and Muliere, P. (2015). Reinforced Urn Processes for Credit Risk Models. Journal of Econometrics, 184:1-12. DOI: 10.1016/j.jeconom. 2014.08.003
- Corsi, F., Peluso, S. and Audrino, F. (2015). Missing in Asynchronicity: A Kalman-EM Approach for Multivariate Realized Covariance Estimation. Journal of Applied Econometrics, 30:377-397. DOI: 10.1002/jae.2378
- Peluso, S., Corsi, F. and Mira, A. (2015). A Bayesian High-Frequency Estimator of the Multivariate Covariance of Noisy and Asynchronous Returns. Journal of Financial Econometrics, 13:665-697. DOI: 10.1093/jjfinec/nbu017

Books and Chapters

- Galimberti, C., Castelletti, F., and Peluso, S. (2023). Bayesian Multivariate Analysis of Mixed Data. In: Statistical Models and Methods for Data Science, Grilli, L., Lupparelli, M., Rampichini, C., Rocco, E. and Vichi, M., Springer, DOI: 10.1007/978-3-031-30164-3
- Arbia, G., Peluso, S., Pini, A. and Rivellini, G. (2019). Smart Statistics for Smart Applications. Book of Short Papers SIS2019. Pearson, ISBN: 978-88-9191-510-8
- Peluso, S. (2019) Parametric and Nonparametric Bayesian Methods in Finance. Best Ph.D. Thesis in Statistics and Applications. CLEUP.
- Peluso, S. and Mira, A. (2015) Convergence and Mixing in Markov Chain Monte Carlo: Advanced Algorithms and Latest Developments. In: Encyclopedia of Statistics in Quality and Reliability, Ruggeri, F., Kenett, R.S. and Faltin, F.W., John Wiley & Sons Ltd., DOI: 10.1002/978-04-7006-157-2

Proceedings and Other Publications

- Bartolucci, F., Peluso, S. and Mira, A. (2023). Causal Inference Under Mis-Specification: Adjustment Based on the Propensity Score. Contributed discussion. Bayesian Analysis, 18:683-684. DOI: 10.1214/22-BA1322
- La Rocca, L., Castelletti, F., Peluso, S., Stingo, F.C. and Consonni, G. (2022). Multiple arrows in the Bayesian quiver: Bayesian learning of partially directed structures from heterogeneous data. Book of the Short Papers SIS 2022, pp. 838-843. Pearson
- Peluso, S. (2022). Bayesian nonstationary and nonparametric covariance estimation for large spatial data. Contributed discussion. Bayesian Analysis, 17:324-325. DOI: 10.1214/21-BA1273
- Galimberti, C., Castelletti, F., and Peluso, S. (2022). A Bayesian framework for structural learning of mixed graphical models. Proceedings of 13-th Scientific Meeting of Classification and Data Analysis Group. Firenze University Press. DOI:10.36253/978-88-5518-340-6
- La Rocca, L., Castelletti, F., Peluso, S., Stingo, F. and Consonni, G. (2020). Bayesian learning of multiple essential graphs. In: A. Pollice, N. Salvati, F. Schirripa Spagnolo (eds.) Book of Short Papers SIS 2020, pp. 447–452. Pearson
- Castelletti, F. and Peluso, S. (2018). Bayesian Cluster Analysis: Point Estimation and Credible Balls. Contributed discussion. Bayesian Analysis, 13:616-618. DOI: 10.1214/17-BA1073
- Bartolucci, F., Peluso, S. and Mira, A. (2017). Marginal modeling of multilateral relational events. Proceedings of the 49th Intermediate Meeting of the Italian Statistical Society. ISBN: 978-88-6453-521-0
- Peluso, S., Mira, A., Muliere, P., Pallotti, F. and Lomi, A. (2016). An application of Reinforced Urn Process to advice network data. Proceedings of the 48th Scientific Meeting of the Italian Statistical Society, ISBN: 978-88-6197-061-8.
- Peluso, S. (2015). Introduction to On the use of Markov chain Monte Carlo methods for the sampling of mixture models by R. Douc, F. Maire, J. Olsson. Statistics and Computing, 25:93-94. DOI: 10.1007/s11222-014-9532-7
- Peluso, S. (2014). Robust Bayesian Graphical Modeling Using Dirichlet t Distributions. Contributed discussion. Bayesian Analysis, 9:583-585. DOI: 10.1214/13-BA856D

Current Works

- Bartolucci, F., Mira, A. and Peluso, S. Marginal Models with Individual-Specific Effects for the Analysis of Longitudinal Bipartite Networks. Under review
- Galimberti, C., Castelletti, F. and Peluso, S. Bayesian Learning of Graph-Based Dependences in Mixed Data. Under review
- Chib, S. and Mira, A. and Peluso, S. A Bayesian Change-Point Analysis of Vector Autoregressive Processes. Submitted
- Peluso, S. Learning Structural and Causal Effects of Interventions on Networks
- Ravenda, P., Peluso, S. and Mira, A. Spatio-Temporal Mapping of COVID-19 in Italy: an Integrated Nested Laplace Approximation Approach
- Castelletti, F. and Peluso, S. Bayesian Causal and Target Discovery from Categorical Graphical Models

Invited Talks

- CMStatistics 2023, 16th International Conference of the ERCIM WG on Computational and Methodological Statistics, Berlin (Germany), 16-18 December 2023. A Bayesian Change Point Analysis of Vector Autoregressive Processes
- ISBA 2022 World Meeting, Montral (Canada), 25 June - 1 July 2022. Network structure learning under uncertain interventions
- ISBA 2020 World Meeting, Kunming Yunnan (China), 28 June - 2 July 2021. Compatible High-Dimensional Graphical Model Selection
- S&DS 2018, Statistics and Data Science, new Developments for Business and Industrial Applications, Politecnico di Torino, Torino (Italy), 24-25 May 2018. Learning Markov Equivalence Classes of Directed Acyclic Graphs: an Objective Bayes Approach
- Statistics4@Florence, University of Firenze, Firenze (Italy), 3-5 July 2017. Objective Bayes Selection of Essential Gaussian Graphical Models
- SIS 2016, 48th Scientific Meeting of the Italian Statistical Society, Salerno (Italy), 8-10 June 2016. Parametric and Nonparametric Bayesian Methods in Finance
- CFE 2015, 9th International Conference on Computational and Financial Econometrics, London (UK), 12-14 December 2015. Bayesian Semiparametric Multivariate Change-Points
- SBIES 2015, Seminar on Bayesian Inference in Econometrics and Statistics, Washington University, St. Louis (USA), 8-9 May 2015. Conditionally Gaussian Random Sequences and Robust Integrated Variance Estimation
- CFE 2014, 8th International Conference on Computational and Financial Econometrics, Pisa (Italy), 6-8 December 2014. Bayesian Nonparametric State Space Models via Mixture Process of Products of Dirichlet Processes
- CFE 2014, 8th International Conference on Computational and Financial Econometrics, Pisa (Italy), 6-8 December 2014. Reinforced Urn Processes for Credit Risk Models
- SBIES 2014, Seminar on Bayesian Inference in Econometrics and Statistics, Chicago (USA), 2-3 May 2014. Bayesian Nonparametric State Space Models via Mixture Process of Products of Dirichlet Processes
- CFE 2011, 5th CSDA International Conference, London (UK), 17-19 Dec 2011. A Bayesian High-Frequency Estimator of the Multivariate Covariance of Noisy and Asynchronous Returns

Contributed Talks

- ISBA 2024 World Meeting, Venice (Italy), 1-7 July 2024. Bayesian learning of network structures from interventional experimental data
- Statistics@Naples, Naples (Italy), 28-30 June 2023. Bayesian learning of network structures from interventional experimental data
- Bernoulli Workshop, Lugano (Switzerland), 26-27 June 2023. Bayesian learning of network structures from interventional experimental data
- Final COSTNET Action virtual conference, Munich (Germany), 24-25 September 2020. Compatible Priors for Model Selection of High-Dimensional Gaussian DAGs
- Statistics5@Aegina, Aegina Island (Greece), 6-8 September 2019. Compatible High - Dimensional Graphical Model Selection
- COSTNET18 Conference, European Cooperation for Statistics of Network Data Science, Warsaw (Poland), 26-28 September 2018. Analyzing social networks via marginal models with individual-specific effects
- QFW 2017, XVIII Workshop on Quantitative Finance, Milan (Italy), 25-27 Jan 2017. Hidden leaders: Identifying latent lead-lag structures in multivariate ultra-high-frequency returns

Seminars

- Institute of Computing, Università della Svizzera italiana, Lugano (Switzerland), 11 November 2022. Network Structure Learning Under Uncertain Interventions
- Department of Mathematical Sciences (DISMA), Politecnico di Torino, Tourin (Italy), 01 March 2022. Graphical Model Selection with Heterogeneity
- Department of Economics, University of Perugia, Perugia (Italy), 15 May 2017. Covariate-adjusted Graphical Models and Essential Graphs: An Objective Bayes Approach

- Department of Statistical Sciences, Università Cattolica del Sacro Cuore, Milan (Italy), 30 October 2015. Parametric and Semiparametric Bayesian Financial Risk Models

Other Conference Participations

- ISBA 2018 World Meeting, International Society for Bayesian Analysis, Edinburgh (UK), 24-29 June 2018. Contributed poster presentation: Learning Markov Equivalence Classes of Directed Acyclic Graphs: an Objective Bayes Approach
- Learning graphical models in high dimensional settings, Edinburgh (UK), 4-7 April 2017. Contributed poster presentation: Objective Bayes Selection of Essential Graphical Models
- ISBA 2016 World Meeting, International Society for Bayesian Analysis, Cagliari (Italy), 13-17 June 2016. Contributed poster presentation: Semiparametric Multivariate and Multiple Change-Point Modelling
- Greek Stochastics ϵ Conference, Kalamata (Greece), 6-8 July 2013. Contributed poster presentation: Reinforced Urn Processes for Credit Risk Models
- Bayes 250 Conference, London (UK), 19-20 June 2013. Contributed poster presentation: Reinforced Urn Processes for Credit Risk Models
- ISBA 2012 World Meeting, International Society for Bayesian Analysis, Kyoto (Japan), 25-29 June 2012. Contributed poster presentation: Estimation of the Multivariate Covariance of Noisy and Asynchronous Returns
- Advances in Markov Chain Monte Carlo, Edinburgh (UK), 23-25 April 2012. Invited poster presentation: An Adaptive Metropolis-within-Gibbs Particle Algorithm for Inference in General State Space Models
- ESOBE 2011, European Seminar on Bayesian Econometrics, Brussels (Belgium), 4-5 November 2011. Contributed poster presentation: A Bayesian Estimator of the Multivariate Covariance of Noisy and Asynchronous Returns
- CLADAG 2011, Scientific Meeting of the Classification and Data Analysis Group, Pavia (Italy), 7-9 September 2011.
- 4th International Institute of Mathematical Statistics / International Society for Bayesian Analysis Joint Meeting, Park City, Utah (USA), 3-7 January 2011. Contributed poster presentation: Applications of Zero Variance Markov Chain Monte Carlo Method
- Greco Italian Meeting on Statistics, Porto San Paolo (Italy), 23-25 September 2010

Conference Organizations

- Member of the Scientific Committee for ISBA 2024 satellite meeting. 25-28 June 2024 in Lugano, Switzerland
- Organizer of the ISBA 2024 satellite meeting session: Multivariate problems in Bayesian statistics. Speakers: C. Galimberti, M. Ruggiero, B. Nipoti, S. Peluso. 25-28 June 2024 in Lugano, Switzerland
- Organizer of the ISBA 2022 session: Bayesian structure learning in complex settings. Speakers: R. Mohammadi, F.C. Stingo, S. Peluso. 25 June - 1 July 2022 in Montreal, Canada
- Organizer of the BayesComp20 session: Novel Mixture-Based Computational Approaches to Bayesian Learning. Speakers: M.Guindani, A. Mira, S. Petrone. 7-10 January 2020 in Gainesville, Florida, USA
- Member of the Local Organizing Committee for the 2019 Scientific Meeting of the Italian Statistical Society. 18-21 June 2019 in Milan, Italy
- Member of the International Organizing Committee for 6th International Institute of Mathematical Statistics/International Society for Bayesian Analysis Joint Meeting. 5 - 7 January 2016 in Lenzerheide, Switzerland

Editorial Activities

- 2023 - Today. Associate Editor for Statistica Neerlandica
- Referee for Annals of Applied Statistics, Bayesian Analysis, Bernoulli, Computational Statistics and Data Analysis, Econometrics and Statistics, Electronic Journal of Statistics, Environmetrics, Insurance: Mathematics and Economics, Entropy, Journal of Business and Economic

Statistics, Journal of Computational and Graphical Statistics, Journal of Econometrics, Journal of Financial Econometrics, Journal of Statistical Computation and Simulation, Journal of the Royal Statistical Society Series A, Journal of the Royal Statistical Society Series B, Journal of the Royal Statistical Society Series C, Quantitative Finance, Stat, Statistical Inference for Stochastic Processes, Statistical Methods and Applications, Statistical Modelling, Statistics and Computing

Scientific Memberships

- 2022 - Today. Member of the Institute of Mathematical Statistics
- 2018 - Today. Member of the Italian Statistical Society
- 2018 - Dec 2020. Member of COST Action COSTNET on European Cooperation for Statistics of Network Data Science
- 2012 - Today. Member of the International Society for Bayesian Analysis

Ph.D School Participations

- May 2022 - Nov 2022. Member of the evaluation committee of the Ph.D. School in Economics, Statistics and Data Science, Cycle XXXVIII, Università di Milano-Bicocca, Milan (Italy)
- Jan 2021 - Today. Member of the board of Professors, Ph.D. School in Economics, Statistics and Data Science, Cycles XXXVII - XXXVIII, Università di Milano-Bicocca, Milan (Italy)
- Jan 2018 - Today. Member of the board of Professors of the Ph.D. School in Economics and Statistics, Cycles XXXIV - XXXVI, Bicocca University, Milan (Italy)
- Jan 2016 - Dec 2020. Member of the board of Professors of the Ph.D. School in Statistics and Mathematical Finance, Cycles XXXII and XXXIII, Bicocca University, Milan (Italy)
- May 2016 - Jul 2016. Member of initial and final evaluation committee of the Ph.D. School in Statistics and Mathematical Finance, Cycle XXXII, Bicocca University, Milan (Italy)

Institutional Roles

- Dec 2022 - Today. Vice coordinator of the B.Sc. Statistics and Information Management, Università degli Studi di Milano-Bicocca, Milan (Italy)
- Feb 2022 - Today. Member of the Student-Professor Joint Committee of the Bachelor in Artificial Intelligence, Università di Pavia, jointly with Università degli Studi di Milano-Bicocca and Università degli Studi di Milano (Italy)
- Jan 2022 - Today. Member of the Scientific Board, B.Sc. in Artificial Intelligence, Università di Pavia, jointly with Università di Milano-Bicocca and Università degli Studi di Milano (Italy)
- Dec 2021. President of the Research Scholarship Committee for Project 21B204, Università degli Studi di Milano-Bicocca, Milan (Italy)
- Mar 2021 - Today. Member of the Committee for International University Accreditation, Università degli Studi di Milano-Bicocca, Milan (Italy)
- Jan 2021 - Dec 2021. Member of the Committee for the institution of the Bachelor in Artificial Intelligence, Università di Pavia, jointly with Università degli Studi di Milano-Bicocca and Università degli Studi di Milano (Italy)
- May 2020 - Today. Member of the Research Grant Committee, Università degli Studi di Milano-Bicocca, Milan (Italy)
- Jan 2018 - Dec 2018. Member of the Committee for the institution of the Master of Science in Innovation and Technology Management, Università Cattolica del Sacro Cuore, Milan (Italy)
- Jan 2016 - Dec 2016. Member of the Committee for the institution of the M.Sc. in Data Analytics for Business and Management, Università Cattolica del Sacro Cuore, Milan (Italy)

Student Supervision

- B.Sc. theses: Alberto Ciampini, Luca D'Ambrosio, Lorenzo Zanchi, Andrea Zambelli, Gabriele Maggioni, Cecilia Trevisi, Sofia Porfiri, Simone Maria Gervasoni
- M.Sc. theses: Vincenzo Nardelli, Emilia Asioli, Giuseppe Atzeni, Emma Cambieri, Mauro Crippa, Andrea Corvi, Federico Ravenda
- Ph.D. tutorships: Nikos Petrakis, Vincenzo Nardelli
- Ph.D. theses: Chiara Galimberti (U. Milano-Bicocca)

- Ph.D. final exam committee: Claudio Busatto (U. of Florence), Giulio Grossi (U. of Florence), Silvia Noirjean (U. of Florence), Alessandro Mascaro (U. Milano-Bicocca)
- Research scholarship responsabilities: Federico Ravenda
- Academic Internships: Cecilia Trevisi, Simone Maria Gervasoni

Other Teaching Activities

- Sep 2015 - Today: President of exam committees for courses with main responsability
- Sep 2013 - Today: Office hours activities

Students' evaluation reports are fully positive and often above the average among similar courses in the same University.

Academic Visits

- Washington University, St. Louis (USA), Jul 2015 - Dec 2015. Host professor: S. Chib
- Bocconi University, Milan (Italy), Nov 2014 - Jun 2015. Host professor: P. Muliere
- Visiting student at Bocconi University, Milan (Italy), PhD in Statistics, Feb - Jun 2012.

National and International Projects

Principal investigator

- Swiss National Science Foundation Spark Grant, Feb 2020 - May 2021. Project title: Bayesian Nonparametric Structural Learning
- Fondazione Fratelli Agostino Enrico Rocca, Jan 2018 - Dec 2018. Project title: Probability risk map of cardiac arrests and optimal localization of public access defibrillators in Canton Ticino
- University of Lugano Doc.Mobility Grant Application $P1TIP1\_155031$, Nov 2014 - Dec 2015. Project title: Bayesian Non-parametric Methods in Finance

Co-investigator

- Fondo Integrativo Speciale per la Ricerca (FISR) First Phase, Jul 2021 - Dec 2021. Project title: Modelli statistici Bayesiani di tipo network per Prevenzione, Preparazione e Previsione del rischio di diffusione di pandemie a supporto di decisioni, comunicazione e inclusione sociale. Principal Investigator: Antonietta Mira
- POR FESR, Jul 2020 - Dec 2020. Project title: InPreSa: Individuazione precoce e contenimento SARS-COV-2. Strumenti e servizi per affrontare la sfida al Covid19.Principal Investigator: Giorgio Vittadini
- Università Cattolica del Sacro Cuore yearly national research projects on Bayesian and frequentist methods for graphical models and high-dimensional data, Sep 2015 - Feb 2020. Principal Investigator: Guido Consonni.

Other participations and small projects

- Swiss National Science Foundation Grant, May 2021 - Apr 2025. Project title: Multivariate spatio-temporal models with latent dynamics for cardiovascular disease prediction with heterogeneous factors. Principal Investigator: Antonietta Mira and Angelo Auricchio
- Project 21B204 of Università degli Studi di Milano-Bicocca, Nov 2021 - Mar 2022. Project title: Bayesian statistical models for estimation and prediction of contagion risk. Principal Investigator: Stefano Peluso
- Project 2020-ATE-0519 of Università degli Studi di Milano-Bicocca, Mar 2021 - Mar 2022. Project title: Bayesian methods for graphical models. Principal Investigator: Stefano Peluso
- Università degli Studi di Milano-Bicocca Fondo di Ateneo Quota Dipartimentale - FAQD 2020, on Bayesian graphical model selection
- Fondaz. Ticino Cuore, Jan 2018 - Dec 2020. Project title: Cardiac Arrests and ACSs in Ticino: a Spatio-Temporal Analysis. Principal investigators: Angelo Auricchio and Antonietta Mira.
- SNSF Grant, Sep 2015 - Dec 2018. Project title: Bayesian Modelling and Algorithms for Heterogenous Interorganisational Networks. PI: Antonietta Mira
- SNSF Grant 200021_130394, Oct 2010 - Sept 2012. Project title: Adaptive Monte Carlo methods to estimate financial risk models. Principal Investigator: Antonietta Mira

Other Prizes and Grants

- Best Doctoral Thesis in Applied Statistics and Demography: Italian Statistical Society, 2015
- SBIES 2014 and 2015 Junior Travel financial support from National Bureau of Economic Research and National Science Foundation
- ISBA 2012 World Meeting Junior Travel Award from the Japanese Ministry of Education, Science, Sports, Culture and Technology, 2012
- Young Investigator Support: 4th International IMS/ISBA Joint Meeting, Park City, 2011
- CIDE Scholarship, University of Bologna, Italy, 2010
- University of Lugano Scholarship, University of Lugano, Switzerland, 2009
- Bocconi University Scholarship, Bocconi University of Milan, Italy, 2002-2007

Non-Academic Roles

- May 2009 - Sept 2010: Enoi SpA, Milan (Italy). Natural Gas Derivatives Trading
- May 2008 - Apr 2009: Abaxbank SpA, Milan (Italy). Financial Markets Division
- Jun 2007 - May 2008: Italian Stock Exchange, Milan (Italy). Market Supervision

Additional Information

- Italian National Scientific Habilitation for Full Professorship in Statistics, Disciplinary Sector SECS-S/01. Jun 2021 - May 2030
- Languages: Italian (mother tongue), English (fluent), French (intermediate)
- Computer skills: R, Matlab, Fortran, Mathematica, Maple, Python, EViews, SQL, VBA, Latex, Reuters, Bloomberg, WinBUGS
- Certifications: GMAT, GRE, CFA I Level, TOEFL, ECDL
- Other interests: violin (diploma of music theory; level I and II certificates in violin)