CURRICULUM VITAE

MASSIMILIANO CAPORIN

Academic position
From April 2016, Professor of Economic Statistics, Department of Statistical Sciences, University of Padova, Italy – address: Via C. Battisti 241, 35121 Padova, phone. +39-049-8274199 – email: massimiliano.caporin@unipd.it

Other positions
From November 2003, GRETA Associati, Venice – Associate partner – Consultancy in official statistics, quantitative risk management, financial advisory, financial econometrics, asset allocation, macroeconometrics and quantitative finance – address: San Polo 2605, 30125 Venezia.

Previous experiences
- January 2011 – March 2016, Associate Professor of Econometrics, Department of Economics and Management "Marco Fanno", University of Padova, Italy;
- March 2006 - December 2010, Assistant Professor of Econometrics, Faculty of Statistical Sciences, Department of Economics and Management "Marco Fanno", University of Padova, Italy;
- March 2005 – February 2006 – University of Padova – Department of Economics and Management "Marco Fanno" – Post-doctoral grant "Tactical asset allocation" – Supervisor: Prof. B. Parigi;
- September 2003 – February 2005 – University Ca' Foscari of Venezia – Department of Economics – Post-doctoral grant "Dating economic cycle: dating methodologies and identification of turning points – application to the Euro Area and comparison with NBER dating – Supervisors: Prof. M. Billio and Prof. G. Cazzavillan;
- November 2002 – Agosto 2003: GRETA Associati, Venice – Researcher and project manager;
- May 2002 – October 2002: Innocenzo Gasparini Institute for Economic Researches – IGIER – Università Bocconi, Milan – Research Assistant participating to the European Forecasting Network co-financed by the European Commission DG ECFIN.

Education & Qualification
- Qualification to Full Professorship in Econometrics (Econometria – 13/A5) (2012 call), Economic Statistics (Statistica Economica – 13/D2) (2012 call), Economics of Financial Intermediaries (Economia degli Intermediari Finanziari e Finanza Aziendale – 13/B4) (2013 call).
- 1999-2003 – Ph.D. in Quantitative Economics – University Ca' Foscari Venezia – Department of Economics – Dissertation's title: Long memory conditional heteroskedasticity and variance causality – supervisor Prof. Domenico Sartore

Coordination of and Participation to Research Projects
- "On the potential global impacts on financial markets and real economics of the Covid19 sanitary crisis", project financed by Europlace Institut de Finance and Labex, Institut Loius Bachelier, Paris, role: member of the research team, coordinator prof. Bertrand Maille (EMLyon);
- "HiDEA: Advanced Econometrics for High-frequency Data", national research project financed by the Italian Ministry of University and Research, national coordinator Prof. Roberto Renò (University of Verona), role: coordinator of the research unit based at the University of Padua;

- “The economics of old age risks”, national research project financed by the Italian Ministry of University and Research, national coordinator Prof. Tullio Jappelli (University of Naples), role: member of the research unit based at the University of Padua, local supervisor, Prof. Guglielmo Weber;
- “The impact of unconventional monetary policies on European financial markets”, Inquire Europe, Institute for quatitative investment research, 2015, joint with Alberto Plazzi (USI), Loriana Pelizzon (SAFE Frankfurt), and Roberto Rigobon (MIT);
- “Multi-jumps in financial asset prices: detection of systemic events, relation with news, and implications for pricing”, University of Padova research projects (progetti di ateneo), 2014 call; role: principal investigator;
- “Systemic Risk” – a project financed by Global Risk Institute in Financial Services and Louis Bachelier Instute; role: member of the research team;
- “MISURA - Multivariate statistical models for risk assessment”, national research project financed by the Italian Ministry of University and Research, national coordinator Prof. Paolo Giudici (University of Pavia), role: member of the research unit based at the University of Florence, local supervisor, Prof. Giampiero Gallo (University of Florence);
- “SYRTO – Systemic Risk Tomography: signals, measurement, transmission channels, and policy interventions”, European Research Project within the FP7 programme “Cooperation – Socio-Economic Sciences and Humanities”, national coordinator Prof. Roberto Savona (University of Brescia), role: member of the local research unit at the University Ca’ Foscari Venice, coordinated by Prof. Monica Billio;
- European Social Fund 2010: scientific coordinator of the project “Methodologies and informatics instruments supporting investment choices: measuring, forecasting and monitoring financial risk; portfolio allocation; short- and long-term investment decisions” awarded of two post-doc yearly grants;
- Fondazione Cassa di Risparmio di Padova e Rovigo, Progetti di Eccellenza 2008-2009, “Anomalous scaling in physics and finance”, member of the research team;
- University of Padova, “Active portfolio management: clustering and performance analysis”, University of Padova research projects (progetti di ateneo) 2008 call; role: principal investigator;
- Europlace Institute of Finance, “Understanding and modelling weather derivatives: a statistical and econometric investigation”, 2007, project managed by Dominique Guégan (Université de Paris I – Sorbonne, France), and including also Monica Billio (University Ca’ Foscari Venezia, Italy), and Rodney Wolff (Queensland University of Technology, Australia); role: member of the research team;
- “Econometric analysis of interdependence, stabilisation and contagion in real and financial markets”, 2006-2007, National research project financed by the Italian Ministry of University and Research – national supervisor Paolo Paruolo (University of Insubria) – local supervisor, Monica Billio (University Ca’ Foscari Venezia, Italy) – role: member of Venice research unit;
- “The Euro and European financial markets volatility: contagion, interdependence and volatility transmission”, 2004-2005, National research project financed by the Italian Ministry of University and Research – local and national supervisor Domenico Sartore (University Ca’ Foscari Venezia, Italy) – role: member of the Venice research unit;
- “Non-linear and non gaussian dynamic models: some estimation and forecast problems and applications” National research project financed by the Ministry of University and Research – local supervisor Silvano Bordignon – role: external researcher;

Consulting oriented projects
- From January 2019 to December 2023, consultant and project manager at the Department of Statistical Sciences of the University of Padova, unit FAR@STAT, for consulting services to be provided to Brennero Base Tunnel BBT on evaluation of costs upgrading and inflation forecasting;

- From July 2017 to December 2020, consultant and project manager at GRETA Associati for services to be provided to Objectway on the development of quantitative solutions and software prototype implementations on topics associated with financial advisory, asset allocation, model simulation;
- From September 2016 to August 2020, co-PI and research consultant, coordinator of the local research unit based at the University of Padova, Department of Statistical Sciences, within the project "Promoting energy efficiency in Qatar: field experimental evidence", international project financed by th Qatar National Research Fund, global coordinator Prof. Ahmed Khalifa (Qatar University);
- From January 2015 to June 2016, project manager and consultant at the Department of Economics and Management "Marco Fanno", University of Padova, for consulting services to be provided to Veneto Banca on financial advisory implementations and tools;
- From 2013 to 2015, research consultant for the Department of Finance and Economics, King Fahd University of Petroleum and Minerals, Saudi Arabia, within the project "The dynamic of systematic risk across the GCC economic sectors and the mutual fund performance", PI Prof. Ahmed Khalifa;
- From July 2010 to March 2016, Financial Advisor at GRETA Associati for services to be provided, jointly with IAMA Consultating, to the Fondo Pensione Quadri e Capi FIAT;
- From September 2002 to December 2007, Consultant at GRETA Associati for services to be provided to Eurostat on topics related to statistical back-calculation of short term structural indicators;
- From March 2002 to August 2002, Research assistant at IGIER, Bocconi University, within the project European Forecasting Network, financed by the European Commission.

Academic roles
- From October 2019 to September 2020, and from October 2021 to present, member of the Council of the Department of Statisical Sciences, University of Padova
- From September 2018, Delegate for Research of the Dean of the Department of Statistical Sciences
- From January 2016, delegate of the University of Padova in the CIDE – Consorzio Interuniversitario di Econometria;
- From May 2018 to March 2021, coordinator of the FAR@STAT committee of the Department of Statistical Sciences supervising and promoting consulting and training activities;
- From February 2017 to September 2020, member of the Scientific Committee for the field Economics and Statistics of the University of Padova;
- From February 2019 to September 2020, coordinator of the PhD Program in Statistical Sciences, Department of Statistical Sciences, University of Padova;
- From September 2017 to January 2019, Vice-coordinator of the PhD Program in Statistical Sciences, Department of Statistical Sciences, Universtiy of Padova;
- From November 2016 to October 2018, member and secretary of the National Committee for Habilitation (Commissario ASN) for the scientific field Economic Statistics (Statistica Economica, SECS-S/03, 13/D2);
- President or member of several evaluation/selection boards, both local and at other universities, in the fields of Economic Statistics, Econometrics, and Mathematical Methods for Economics, Actuarial and Financial Sciences, for Assistant, Associate or Full Professor positions.

Teaching
<u>Department of Statistical Sciences of the University of Padova:</u>
- Financial Data Analysis, MSC in Statistics, from 2021/22;
- Statistical Methods for Finance, BSc in Statistics for Economics and Management, from 2021/22;
- Computational Finance, MSc in Statistics, from 2016/17 to 2019/20;
- Statistical models for economic data, MSc in Statistics, from 2016/17 to 2019/20;

- Economic time series, BSc in Statistics for Economics and Finance, 2019/20;
- Financial Econometrics, BSc in Statistics for Economics and Finance from 2013/14 to 2015/2016;
- Principles of Finance, MSc in Statistics, 2013/14;

Department of Mathematics "Tullio Levi-Civita" of the University of Padova:
- Regression and Time Series Models, MSc in Computational Finance, from 2023/24;

Department of Economics and Management "Marco Fanno" of the University of Padova:
- Computational Finance, MSc in Economics and Finance, 2014/15 and 2015/16;
- Econometrics A-E, BA in Economics, 2015/16;
- Econometrics for Economics, Ph.D. program in Economics and Management, from 2012/13 to 2015/16;
- Introductory Probability and Statistics, Ph.D. program in Economics and Management, 2006/7 to 2011/12;

University of Padova, former Faculty of Statistical Sciences (at BA, BSc and MSc levels – up to 2013):
- Financial Econometrics, 2010/11-2012/13;
- Principles of Finance, 2006/7-2012/13;
- Problems in Introductory Financial Economics (tutorials), 2010/11;
- Problems in Financial Econometrics (tutorials), 2006/7 to 2009/10;
- Problems in Advanced Econometrics (tutorials), 2005/6 to 2009/10;
- Problems in Principles of Finance (tutorials), 2005/6;
- Problems in Econometrics of Limited Dependent Variables (tutorials), 2005/6 to 2009/10;
- Applied Economic Statistics, 2004/5;
- Problems in Time series analysis (tutorials), 2003/4 and 2004/5;

Department of Economics of the University of Venice (M.Ph.):
- Master in Economics and Finance, 2018, 2019, and 2021 Editions, Financial Econometrics I (full course) and for 2018 and 2019 Editions, Financial Econometrics II (applications module);
- Master in Economics and Finance, 2016-2017 Editions, Quantitative Methods for Finance (full course) and Volatility Measurement (applications module);
- Master in Economics and Finance, 2009-2015 Editions, Econometrics tutorials with Matlab;
- Master in Economics and Finance, 2006 to 2008 Editions, Econometrics tutorials with Eviews;

Venice International University, International Centre for Economics and Finance (M.Ph.):
- Master in Economics and Finance, 2004 and 2005 Editions, Econometrics tutorials with Gauss;
- Master Program in Economics and Finance, 2003, Econometrics tutorials with Gauss;

University Ca' Foscari, Venice, former Faculty of Economics (at BA, BSc and MSc levels):
- International Finance: Economics and Econometrics, 2008/9;
- Econometrics I, 2004/5 and 2005/6;
- Problems in Econometrics (tutorials), 2003/4;
- Introduction to software for time series analysis (tutorials), 2003/4 and 2004/5;
- Financial Econometrics I, 2003/4;

University of Torino, Collegio Carlo Alberto (M.Ph.)
- Master in Finance, Financial Econometrics, from 2014/15 to 2019/2020 and from 2021/22;

Other teaching activities (M.Ph. and Ph.D.):

Società Italiana di Econometria – PhD course: Financial Time Series, yearly, from 2018;
Università Umanesimo Latino S.p.A. – New Europe Master in Banking and Entrepreneurship 2007-2012 – Financial System and Intermediaries;

Teching in foreign institutions
- Complutense University of Madrid, Department of Economic Analysis, November 2022, "High Frequency Econometrics", Master of Science in Quantitative Finance, financed by Erasmus+;
- Urgench State University, Urgench, Uzbekistan, October 2022, Development cooperation activity betwteen Padova and Urgench, "Time Series Analysis" for students in the Master of Science in Economics, Faculty of Economics, financed by the University of Padova, "Shaping a World Class University" call for internationalization projects;
- Complutense University of Madrid, Department of Economic Analysis, February 2017, Short PhD course "Quantile regression, systemic risk and financial networks";
- Invited Lecture, Chair in International Finance – Banco de Santander, Valencia, February 2011, topic "Long range dependence in economics and finance";
- University of Chiang Mai, Department of Economics, June 2011, Short PhD course "Multivariate volatility models", PhD in Economics.

Leave & Visiting
On sabbatical leave from October 2020 to September 2021.
Carlos III University of Madrid, Madrid, Spain, Department of Statistics, 4-16 October 2021.
Complutense University of Madrid, Madrid, Spain, Department of Economic Analysis, 1-12 November 2021.
Carlos III University of Madrid, Madrid, Spain, Department of Statistics, 22 November-3 December 2021.

Main Publications in International Journals
1. Menkveld, A.J. and Dreber, A. and Holzmeister, F. and Huber, J. and Johanneson, M. and Kirchler, M. and Razen, M. and Weitzel, U. and […] and Caporin, Massimiliano and […] and Wu, Z., Non-Standard Errors, **Journal of Finance**, *forthcoming*;
2. Bernard, C., Caporin, M., Maillet, B. and Zhang, X., Omega compatibility: a meta-analysis, **Computational Economics**, *forthcoming*, 10.1007/s10614-022-10306-x;
3. Caporin, M., The role of jumps in realized volatility modeling and forecasting, **Journal of Financial Econometrics**, *forthcoming*, 10.1093/jjfinec/nbab030;
4. Billio, M., Caporin, M., Frattarolo, L., and Pelizzon, L., Networks in risk spillovers: a multivariate GARCH perspective, **Econometrics and Statistics**, *forthcoming*, 10.1016/j.ecosta.2020.12.003;
5. Billio, M., Caporin, M., Panzica, R. and Pelizzon, L., 2023, The impact of network connectivity on factor exposures, asset pricing and portfolio diversification, **International Review of Economics and Finance**, 84, 196-223, 10.1016/j.iref.2022.11.002;
6. Caporin, M., Shchepeleva, M., and Stolbov, M., 2022, What drives the expansion of research on banking crises? Cross-country evidence, **Applied Economics**, 54, 52, 6054-6064, 10.1080/00036846.2022.2056130;
7. Bonaccolto, G., Caporin, M. and Maillet, B., 2022, Dynamic Large Financial Networks via Conditional Expected Shortfalls, **European Journal of Operational Research**, 298, 332-336, 10.1016/j.ejor.2021.06.037;
8. Caporin, M. and Poli, F., 2022, News and intraday jumps: evidence from regularization and class imbalance", **North American Journal of Economics and Finance**, 62, 101743, 10.1016/j.najef.2022.101743;

9. Caporin, M., Fontini, F., and Santucci de Magistris, P., 2022, The long-run relationship between the Italian day-ahead and balancing electricity prices, **Energy Systems**, 13, 111-136, 10.1007/s12667-020-00392-x;
10. Caporin, M., Costola, M., Garibal, J., and Maillet, B., 2022, Systemic Risk and Severe Real Economy Downturns: A Sparse and Targeted analysis, **Journal of Banking and Finance**, 134, 106339, 10.1016/j.jbankfin.2021.106339;
11. Bonaldo, C., Caporin, M., and Fontini, F., 2022, The relationship between day-ahead and futures prices in the electricity markets: an empirical analysis on Italy, France, Germany and Switzerland, **Energy Economics**, 110, 105977, 10.1016/j.eneco.2022.105977;
12. Yu, S., Liu, J., and Caporin, M., The effect of renewable energy development on China's energy intensity: Evidence from linear and nonlinear analyses, 2022, **Journal of Cleaner Production**, 350, 10.1016/j.jclepro.2022.131505;
13. Caporin, M., and Costola, M., 2022, Time-varying Granger causality tests in the energy markets: A study on the DCC-MGARCH Hong test, **Energy Economics**, 111, 106088, 10.1016/j.eneco.2022.106088;
14. Caporin, M., Jimenez-Martin, J.A. and Jorcano, L., Measuring systemic risk during the COVID-19 period: a TALIS^3 approach, 2022, **Finance Research Letters**, 46, 102304, 10.1016/j.frl.2021.102304;
15. Caporin, M., Costola, M., Khalifa, A., and Hammoudeh, S., 2021, Systemic risk for financial institutions of major petroleum-based economies: The role of oil, **The Energy Journal**, 42(6), 247-274, 10.5547/01956574.42.6.AKHA;
16. Liu, S., Caporin, M., and Paterlini, S., 2021, Dynamic network analysis of North American financial institutions, **Finance Research Letters**, 42, 101921, 10.1016/j.frl.2021.101921;
17. Al-Yahyaee, K., Caporin, M., Kang, S.H., Ko, H., and Mensi, W., 2021, Is the Korean housing market following Gangnam style? **Empirical Economics**, 61, 2041-2072, 10.1007/s00181-020-01931-2;
18. Bonaccolto, G., Caporin, M., and Zambon, N., Multiple co-jumps in the cross-section of US equities and the identification of system(at)ic movements, 2021, **European Journal of Finance**, 27(11), 1098-1116, 10.1080/1351847X.2020.1856704;
19. Caporin, M., Jimenez-Martin, J.A. and Jorcano, L., 2021, TrAffic LIght System for Systemic Stress: TALIS^3, **North American Journal of Economics and Finance**, 57, July 2021, 101449, 10.1016/j.najef.2021.101449;
20. Caporin, M., Gupta, R., and Ravazzolo, F., 2021, Contagion between Real Estate and Financial Markets: A Bayesian Quantile-on-Quantile Approach, **North American Journal of Economics and Finance**, 55, January 2021, 101347, 10.1016/j.najef.2020.101347;
21. Naeem, M.A., Arif, M., Hasan, M., Caporin, M., and Shahzad, S.J.H., 2021, Asymmetric and time-frequency spillovers among commodities using high-frequency data, **Resources Policy**, 70, March 2021, 101958, 10.1016/j.resourpol.2020.101958;
22. Caporin, M., and Shahzad, S.J.H., On the volatilities of tourism sotcks and oil, **Annals of Tourism Research**, 81, March 2020, 102705, 10.1016/j.annals.2019.03.011;
23. Caporin, M. and Malik, F., 2020, Do Structural Breaks in Volatility cause Spurious Volatility Transmission? **Journal of Empirical Finance**, 55, 60-82, 10.1016/j.jempfin.2019.11.002;
24. Caporin, M. and Rodriguez Caballero, C.V., 2019, A multilevel factor approach for the analysis of CDS commonality and risk contribution, **Journal of International Financial Markets Institutions and Money**, 63, November 2019, 101144, 10.1016/j.intfin.2019.101144;
25. Bonaccolto, G., Caporin, M., and Paterlini, S., 2019, Decomposing and backtesting a flexible specification for CoVaR, **Journal of Banking and Finance**, 108, November 2019, 105659, 10.1016/j.jbankfin.2019.105659;

26. Bonaccolto, G., Caporin, M., and Panzica, R., 2019, Estimation and model-based combination of causality networks among large US Banks and Insurance companies, **Journal of Empirical Finance**, 54, 1-21, 10.1016/j.jempfin.2019.08.008;
27. Caporin, M., Natvik, G., Ravazzolo, F., and Santucci de Magistris, P., 2019, The Bank-Sovereign Nexus: Evidence from a non-Bailout Episode, **Journal of Empirical Finance**, 53, 181-196, 10.1016/j.jempfin.2019.07.001;
28. Caporin, M., Corazzini, L., and Costola, M., 2019, Measuring the Behavioural Component of the S&P 500 and Its Relationship to Financial Stress and Aggregated Earnings Surprises, **British Journal of Management**, 30, 712-729, 10.1111/1467-8551.12285;
29. Caporin, M., Fontini, F., and Talebbeydokhti, E., 2019, Testing Persistence of WTI and Brent Long-run Relationship after the Shale oil Supply Shock, **Energy Economics**, 79, 21-31, 10.1016/j.eneco.2018.08.022;
30. Caporin, M., and Costola, M. 2019, Asymmetry and Leverage in GARCH models: A News Impact Curve perspective, **Applied Economics**, 51, 3345-3364, doi:10.1080/00036846.2019.1578853;
31. Khalifa, A., Caporin, M., and Di Fonzo, T., 2019, Scenario-based forecast for the electricity demand in Qatar and the role of energy efficiency improvements, **Energy Policy**, 127, 155-164, doi:10.1016/j.enpol.2018.11.047;
32. Caporin, M., Chang, C., McAleer, M., 2019, Are the S&P500 index and crude oil, natural gas and ethanol futures related for intra-day data?, **International Review of Economics and Finance**, 59, 50-70, doi:10.1016/j.iref.2018.08.003;
33. Bonaccolto, G., Caporin, M., and Gupta, R., 2018, Oil returns conditional quantiles and uncertainty indexes: causality and forecasting implications, **Physica A**, 507, 446-469, doi:10.1016/j.physa.2018.05.061;
34. Blasi, S., Caporin, M., and Fontini, F., 2018, A multidimensional analysis of the relationship between firms' Corporate Social Responsibility activities and their economic performance, **Ecological Economics**, 147, 218-229, doi:10.1016/j.ecolecon.2018.01.014;
35. Caporin, M., Pelizzon, L., Ravazzolo, F., and Rigobon, R., 2018, Sovereign contagion in Europe, **Journal of Financial Stability**, 34, 150-181, doi:10.1016/j.jfs.2017.12.004;
36. Bonaccolto, G., Caporin, M., and Paterlini, S., 2018, Asset allocation with penalized quantile regression, **Computational Management Science**, 15, 1-32, doi:10.1007/s10287-017-0288-3;
37. Caporin, M., Costola, M, Jannin, J., and Maillet, B., 2018, On the (Ab)Use of Omega?, **Journal of Empirical Finance**, 46, 11-33, doi:10.1016/j.jempfin.2017.11.007;
38. Caporin, M., Kolokolov, A., and Renò, R., 2017, Systemic co-jumps, **Journal of Financial Economics**, 126, 563-591, doi:10.1016/j.jfineco.2017.06.016;
39. Caporin, M., and Gupta, R., 2017, Time-varying persistence in US inflation, **Empirical Economics**, 53-2, 423-439, doi:10.1007/s00181-016-1144-y;
40. Caporin, M., and Fontini, F., 2017, The Long-Run Oil-Natural Gas Price Relationship and the Shale Gas Revolution, **Energy Economics**, 64, 511-519, doi:10.1016/j.eneco.2016.07.024;
41. Caporin, M., Rossi, E, and Santucci de Magistris, P., 2017, Chasing volatility: a persistent multiplicative error component model with jumps, **Journal of Econometrics**, 198-1, 122-145, doi:10.1016/j.jeconom.2017.01.005;
42. Caporin, M., Khalifa, A., and Hammoudeh, S., 2017, The relationship between oil prices and rig counts: The importance of lags, **Energy Economics**, 63, 213-226, doi:10.1016/j.eneco.2017.01.015;
43. Caporin, M., and Paruolo, P., 2017, A correction of Caporin and Paruolo (2015), **Econometric Reviews,** 36(4), 493, doi:10.1080/07474938.2016.1275203;
44. Caporin, M., Rossi, E., and Santucci de Magistris, P., 2016, Volatility jumps and their economic determinants, **Journal of Financial Econometrics**, 14-1, 29-80, doi:10.1093/jjfinec/nbu028;

45. Billio, M., Caporin, M., and Costola, M., 2015, Backward/Forward optimal combination of performance measures, **North American Journal of Economics and Finance**, 34, C, 63-83, doi:10.1016/j.najef.2015.08.002;
46. Asai, M., Caporin, M., and McAleer, M., 2015, Forecasting Value-at-Risk Using Block Structure Multivariate Stochastic Volatility Models, **International Review of Economics and Finance**, 40, C, 40-50, doi:10.1016/j.iref.2015.02.004;
47. Caporin, M., and Velo, G., 2015, Forecasting realized range volatility: dynamic features and predictive variables, **International Review of Economics and Finance**, 40, C, 98-112 doi:10.1016/j.iref.2015.02.021;
48. Caporin, M., Hammoudeh, S., and Khalifa, A., 2015, Spillovers between energy and FX markets: The importance of asymmetry, uncertainty and business cycle, **Energy Policy**, 87, 72-82, doi:10.1016/j.enpol.2015.08.039;
49. Baldovin, F., Caporin, M., Caraglio, M., Stella, A., and Zamparo, M., 2015, Option pricing with non-Gaussian scaling and infinite-state switching volatility, **Journal of Econometrics**, 187, 486-497, doi:10.1016/j.jeconom.2015.02.033;
50. Caporin, M., Ranaldo, A., and Velo, G., 2015, Precious metals under the microscope: A high-frequency analysis, **Quantitative Finance**, 15, 743-759, doi:10.1080/14697688.2014.947313;
51. Baldovin, F., Camana, F., Caporin, M., Caraglio, M., and Stella, A., 2015, Ensemble properties of high frequency data and intraday trading rules, **Quantitative Finance**, 15, 231-245, doi:10.1080/14697688.2013.867454;
52. Caporin, M., and Paruolo, P., 2015, Proximity-Structured Multivariate Volatility Models, **Econometric Reviews**, 34, 559-593, doi:10.1080/07474938.2013.807102;
53. Caporin, M., Jannin, G.M., Lisi, F., and Maillet, B.B., 2014, A survey of the four families of performance measures, **Journal of Economic Surveys**, 28, 917-942, doi:10.1111/joes.12041;
54. Aielli, G.P., and Caporin, M., 2014, Variance clustering improved dynamic conditional correlation estimators, **Computational Statistics and Data Analysis**, 76, 556-576, doi:10.1016/j.csda.2013.01.029;
55. Caporin, M., and McAleer, M., 2014, Robust ranking of multivariate GARCH models by problem dimension, **Computational Statistics and Data Analysis**, 76, 172-185, doi:10.1016/j.csda.2012.05.012;
56. Caporin, M., Jimenez-Martin, J.A., and Gonzales-Serrano, L., 2014, Currency hedging strategies and strategic benchmarks and the Global and Euro Sovereign financial crises, **Journal of International Financial Markets Institutions and Money**, 31, 159-177, doi:10.1016/j.intfin.2014.03.015;
57. Caporin, M., and Lisi, F., 2013, A conditional single index model with local covariates for detecting and evaluating active portfolio management, **North American Journal of Economics and Finance**, 26, 236-249, doi:10.1016/j.najef.2013.02.003;
58. Aielli, G.P., and Caporin, M., 2013, Fast Clustering of GARCH Processes Via Gaussian Mixture Models, **Mathematics and Computers in Simulations**, 94, 205-222, doi:10.1016/j.matcom.2012.09.015;
59. Bonato, M., Caporin, M., and Ranaldo, A., 2013, Risk spillovers in international equity portfolios, **Journal of Empirical Finance**, 24, 121-137, doi:10.1016/j.jempfin. 2013.09.005;
60. Caporin, M., Ranaldo, A., and Santucci de Magistris, P., 2013, On the Predictability of Stock Prices: a Case for High and Low Prices, **Journal of Banking and Finance**, 37, 5132-5146, doi:10.1016/j.jbankfin.2013.05.24;
61. Kasch, M., and Caporin, M., 2013, Volatility threshold dynamic conditional correlations: an International analysis, **Journal of Financial Econometrics**, 11, 706-742, doi:10.1093/jjfinec/nbs028;
62. Caporin, M., 2013, Equity and CDS sector indices: dynamic models and risk hedging, **North American Journal of Economics and Finance**, 25, 261-275, doi:10.1016/j.najef.2012.06.004;

63. Caporin, M., and Preś, J., 2013, Forecasting temperature indices density with time-varying long-memory models, **Journal of Forecasting**, 32, 339-352, doi:10.1002/for.1272;
64. Bonato, M., Caporin, M., and Ranaldo, A., 2012, A forecast based comparison of restricted Wishart Auto Regressive models for realized covariance matrices, **European Journal of Finance**, 18, 761-774, doi:10.1080/1351847X.2011.601629;
65. Caporin, M., and Lisi, F., 2012, On the role of risk in the Morningstar rating for funds, **Quantitative Finance**, 12, 1477-1486, doi:10.1080/14697688.2012.665999;
66. Caporin, M., Preś, J. and Torro, H., 2012, Model Based Monte Carlo Pricing of Energy and Temperature Quanto Options, **Energy Economics**, 34, 1700-1712, doi:10.1016/j.eneco.2012.02.008;
67. Caporin, M., and McAleer, M., Do we really need both BEKK and DCC? A tale of two covariance models, 2012, **Journal of Economic Surveys**, 26, 736-751, doi:10.1111/j.1467-6419.2011.00683.x;
68. Caporin, M., and Pres, J., 2012, Modeling and forecasting wind speed intensity for weather risk management, **Computational Statistics and Data Analysis**, 56, 3459-3476, doi:10.1016/j.csda.2010.06.019;
69. Caporin, M. and Santucci de Magistris, P., 2012, On the evaluation of Marginal Expected Shortfall, **Applied Economics Letters**, 19, 175-179 doi:10.1080/ 13504851.2011.570704;
70. Caporin, M., and McAleer, M., 2011, Thresholds, news impact surfaces and dynamic asymmetric multivariate GARCH, **Statistica Neerlandica**, 65-2, 125-163, doi:10.1111/j.1467-9574.2010.00479.x;
71. Billio, M., and Caporin, M., 2010, Market linkages, variance spillovers and correlation stability: empirical evidences of financial market contagion, **Computational Statistics and Data Analysis**, 54-11, 2443-2458, doi:10.1016/j.csda.2009.03.018;
72. Caporin, M., and McAleer, M., 2010, A Scientific Classification of Volatility Models, **Journal of Economic Surveys**, 2010, 24-1, 192-195, doi:10.1111/j.1467-6419.2009.00584.x;
73. Caporin, M., and McAleer, M., 2010, The Ten Commandments for Investment Management, **Journal of Economic Surveys**, 24,-1, 196-200, doi:10.1111/j.1467-6419.2009.00585.x;
74. Caporin, M. and Lisi, F., 2010, Misspecification tests for periodic long memory GARCH models, **Statistical Methods and Applications**, 19-1, 47-62, doi:10.1007/s10260-009-0118-z;
75. Billio, M., and Caporin, M., 2009, A generalised dynamic conditional correlation model for portfolio risk evaluation, **Mathematics and Computer in Simulation**, 79-8, 2566-2578, doi:10.1016/j.matcom.2008.12.011;
76. Bordignon, S., Caporin, M., and Lisi, F., 2009, Periodic Long Memory GARCH models, **Econometric Reviews**, 28-(1-3), 60-82, doi:10.1080/07474930802387860;
77. Caporin, M., and McAleer, M., 2008, Scalar BEKK and Indirect DCC, **Journal of Forecasting**, 27-6, 537-549, doi:10.1002/for.1074;
78. Caporin, M., 2008, Evaluating value-at-risk measures in presence of long memory conditional volatility, **Journal of Risk**, 10-3, 79-110;
79. Billio, M., and Caporin, M., and Cazzavillan, G., 2007, Dating Euro15 monthly business cycle jointly using GDP and IPI, **Journal of Business Cycle Analysis and Measurement**, 3-3, 336-366, doi:10.1787/17293626;
80. Bordignon, S., Caporin, M., and Lisi, F., 2007, Generalised Long Memory GARCH models for intra-daily volatility, **Computational Statistics and Data Analysis**, 51-12, 5900-5912, doi:10.1016/j.csda.2006.11.004;
81. Caporin, M., 2007, Variance (Non-)Causality in multivariate GARCH: a new model, **Econometric Reviews**, 26(1), 1-24, doi:10.1080/07474930600972178;
82. Caporin, M., and McAleer, M., 2006, Dynamic Asymmetric GARCH, **Journal of Financial Econometrics**, 4(3), 385-412, doi:10.1093/jjfinec/nbj011;

83. Billio, M., and Caporin, M., and Gobbo, M., 2006, Flexible Dynamic Conditional Correlation Multivariate GARCH for asset allocation, **Applied Financial Economic Letters**, 2(2), 123-130, doi:10.1080/17446540500428843;
84. Billio, M., and Caporin, M., 2005, Dynamic conditional correlations: block structures and Markov switches for contagion analysis, **Statistical Methods and Applications**, 2005-14, 145-161, doi:10.1007/s10260-005-0108-8;
85. Caporin, M., 2003, Identification of Long memory in GARCH models, **Statistical Methods and Applications**, 12, 133-151, doi:10.1007/s10260-003-0056-0;
86. Bertelli, S. and Caporin, M., 2002, A note on calculating autocovariances of long memory processes, **Journal of Time Series Analysis**, 23(5), 503-508, doi:10.1111/1467-9892.00275.

Other publications in international, national and open access journals

1. Shahzad, S.J.H, and Caporin, M., Sign effects of volatility and jumps in forex markets and a reappraisal of meteor showers and heat waves, **Finance**, *forthcoming*;
2. Caporin, M., and Elseidi M., Quantile regression based seasonal adjustment, **International Journal of Computational Economics and Econometrics**, *forthcoming*;
3. Ghazani, M.M., Khosravi, R., and Caporin, M., Analyzing interconnection among selected commodities in the 2008 global financial crisis and the COVID-19 pandemic, 2023, **Resources Policy**, 80, 103157, 10.1016/j.resourpol.2022.103157;
4. Ewing, B.T., Payne, J.E., and Caporin, M., The Asymmetric Impact of Oil Prices and Production on Drilling Rig Trajectory: A correction, 2022, **Resources Policy**, 79, 103052, 10.1016/j.resourpol.2022.103052;
5. Billé, A. and Caporin, M., Impact of COVID-19 on Financial Returns: A Spatial Dynamic Panel Data Model with Random Effects, 2022, **Journal of Spatial Econometrics**, 3:8, 1-21, 10.1007/s43071-022-00025-8;
6. Caporin, M., Fontini, F., and Segato, S., 2021, Has the EU-ETS financed the energy transition of the Italian power system?, **International Journal of Financial Studies**, 9-71;
7. Caporin, M., and Storti, G., 2020, (Editorial) Financial Time Series Methods and Models, **Journal of Risk and Financial Management**, 13-(5), 86, 10.3390/jrfm13050086;
8. Caporin, M., R.J. Lucchetti, and G. Palomba, 2020, Analytical gradient of dynamic conditional correlation models, **Journal of Risk and Financial Management**, 13-(3), 49 10.3390/jrfm13030049;
9. Khalifa, A., A.A.S.A. Al-Maadid, and M. Caporin, 2019, Water demand in Qatar: future trends and conservation scenarios, **Water Utility Journal**, 22, 27-42;
10. Caporin, M., and Poli, F., 2017, Building News Measures from Textual Data and an Application to Volatility Forecasting, **Econometrics**, doi:10.3390/econometrics5030035;
11. Bonaccolto, G., and Caporin, M., 2016, The determinants of equity risk and their forecasting implications: a quantile regression perspective, **Journal of Risk and Financial Management**, 2016, 9, 8, doi:10.3390/jrfm9030008;
12. Costola, M., and Caporin, M., 2016, Rational learning for risk-averse investors by conditioning on behavioral choices, 11-1, 1650003, **Annals of Financial Economics,** doi:10.1142/S2010495216500032;
13. Caporin, M., and McAleer,M., 2013, Ten Things You Should Know about the Dynamic Conditional Correlation Representation, **Econometrics**, 1, 115-126, doi:10.3390/econometrics1010115
14. Caporin, M., Lanzavecchia, A., Lippoli, 2013, I fondi immobiliari italiani: NAV discount e valutazioni degli esperti indipendenti, **Finanza Produzione e Marketing**, 3-2013.
15. Caporin, M. and Lisi, F., 2011, Comparing and selecting performance measures using rank correlations, **Economics: The Open-Access, Open-Assessment E-Journal**, Vol. 5, 10, doi:10.5018/economics-ejournal.ja.2011-10;

Book chapters

1. Bernardi, M., Bonaccolto, G., Caporin, M. and Costola, M., 2020, Volatility forecasting in a data-rich environment, Ch. 5 in Fuleky, P. (ed.), **Macroeconomic Forecasting in the Era of Big Data: Theory and Practice**, Advanced Studies in Theoretical and Applied Econometrics, Volume 52, Springer, ISBN 978-3030311490;
2. Bonato, M., Caporin M., and Ranaldo A., 2016, A forecast-based comparison of restricted Wishart autoregressive models for realized covariance matrices, in Nolte I., Salmon M. and Adcock C. (eds.), **High Frequency Trading and Limit Order Book Dynamics**, Routledge, ISBN 978-1138829381, reprinted from European Journal of Finance (2012);
3. Caporin, M. and Fontini, F., 2015, Damages Evaluation, Periodic Floods, and Local Sea Level Rise: The Case of Venice, Italy, in Ramiah, W. and Gregoriou, G.N. (eds.), **The Handbook of Environmental and Sustainable Finance, Academic Press – Elsevier**, ISBN 978-0-128-03615-0, doi:10.1016/B978-0-12-803615-0.00005-4;
4. Caporin, M., and Velo, G.G., 2013, Modeling and forecasting realized range volatility, in Torelli, N. and Pesarin, F., (eds.), **Advances in Theoretical and Applied Statistics, Springer**, ISBN 978-3-642-35587-5;
5. Billio, M., Caporin, M., Pelizzon, L., and Sartore, D., 2013, CDS Industrial Sector Indices, Credit and Liquidity Risk, in Rösch, D., and Scheule, H. (eds.), **Credit Securities and Derivatives – Challenges for the Global Markets, John Wiley & Sons, Inc**., New Jersey, US, ISBN 978-1-119-96396-7, doi:10.1002/9781118818503.ch15;
6. Caporin, M., and Pelizzon, L., 2012, Market volatility, optimal portfolios and naive asset allocations, in Wehn, C., Hoppe, C., and Gregoriou, G.N. (eds.), **Rethinking Valuation and Pricing Models: Lessons Learned from the Crisis and Future Challenges, Handbooks in Economics, Academic Press - Elsevier**, ISBN 978-0124158757, doi:10.1016/B978-0-12-415875-7.00025-7;
7. Caporin, M. and McAleer, M., 2012, Model selection and testing of conditional and stochastic volatility models, in Bauwens, L., Hafner, C., and Laurent, S. (eds.) **Handbook of Volatility Models and Their Applications (Wiley Handbooks in Financial Engineering and Econometrics), John Wiley & Sons, Inc**., New Jersey, US, ISBN 978-0470872512, doi:10.1002/9781118272039.ch8;
8. Billio, M. and Caporin, M., 2011, Contagion dating through market interdependence analysis and correlation stability, in Robert W. Kolb (eds.) **Financial Contagion: The Viral Threat to the Wealth of Nations, February 2011, John Wiley & Sons, Inc**., New Jersey, US, ISBN 978-0470922385, doi:10.1002/9781118267646.ch4.

Book reviews

1. Caporin, M., 2022, review of Gentle, James; Statistical Analysis of Financial Data: with Examples In R; Chapman and Hall/CRC Press ISBN: 9781138599499646, **Journal of the Royal Statistical Society: Series A (Statistics in Society)**, 185-1, 432-433.

Papers submitted or under revision

1. "The Asymmetric Relationship between Conventional/Shale Rig Counts and WTI Oil Prices", with F. Fontini (University of Padova) and R. Romaniello *(submitted, second round)*;
2. "Monitoring financial stress with high-frequency principal components", with J.A. Jimenez Martin (Complutense University of Madrid) and L. Jorcano (University of Castilla-La Mancha) *(submitted)*;
3. "Does Monetary Policy Impact Market Integration? Evidence from Developed and Emerging Markets", with L. Pelizzon (Goethe University Frankfurt) and A. Plazzi (Università della Svizzera Italiana) *(submitted)*;

4. "Estimating time-varying networks with a state space model", with S. Liu (University of Padova) and S. Paterlini (University of Trento) *(submitted, under revision)*;
5. "On the ordering of dynamic principal components and the implications for portfolio analysis", with G. Bonaccolto (Kore University of Enna) *(submitted)*;
6. "The systemic risk of US oil and natural gas companies", with R. Panzica (JRC, Ispra) and F. Fontini (University of Padova) *(submitted, second round)*;
7. "Estimating financial networks by realized interdependence: a restricted vector autoregressive approach", with S. Nasini (IESEG Business School, Lille) and D. Erdemlioglu (IESEG Business School, Lille) *(submitted, under revision)*;
8. "Mixturing, heavy tailedness, asymmetry and conditional heteroskedasticity in financial returns modellin", with F. Setoudehtazangi (University of Padova), T. Manouchehri and A.R. Nematollahi (Shiraz University, Iran) *(submitted)*;
9. "New insights on the environmental Kuznets curve (EKC) for central Asia: is the relation linear or non-linear?" with A. Cooray (James Cook University, Australia), B. Kuziboev and I. Yusubov (Urgench University, Uzbekistan) *(submitted)*;
10. "Cross-company jump spillover and the role of news" with F. Poli (Univeristy of Padova) *(submitted)*;
11. "Measuring Systemic Risk under the Sanitary Crisis: Evidence during the COVID-19 Pandemic Period coming from a Modified and Augmented TArgeted and Sparse SYstemic Risk Index Analysis", with B. Maillet (EMLyon), M. Costola (University Ca' Foscari Venezia) and Y. Zhou (EMLyon) *(submitted)*;
12. "ESG Risk Exposure: A Tale of Two Tails", with J.A. Jimenez-Martin and R. Yang (Complutense University of Madrid) *(submitted)*;

Papers in progress (at different stages of development)

1. "Not all words are equal: sentiment and jumps in cryptocurrency markets", with F. Poli (University of Padova), O. Cepni (Copenhagen Business School), and A.F. Aysan (Hamad bin Khalifa University);
2. "The conditional autoregressive G model for common factor detection in the stock market", with M. Girardi (University of Padova);
3. "The nexus between economic activities and CO2 emissions: The case of Qatar", with A. Khalifa (Qatar University), A.A. Al-Maadid (Qatar University), and T. Di Fonzo (University of Padova);
4. "Oil Price Uncertainty and Inter-State Conflicts: Evidence from Middle East and North Africa Countries (MENA)", with Z. Nikpour (University of Padova) and P. Valbonesi (University of Padova);
5. "Jump risk and pricing implicatons", with N. Zambon (University of Padova) and W. Distaso (Imperial College London);
6. "Asymmetric and frequency volatility spillover in the Forex market and the role of quantitative easing", with S.J.H. Shahzad (Montpellier Business School) and T.H.V. Hoang (Montpellier Business School);
7. "The Evolution of Shadow Banking System in Emerging Economies: The Role of Entrusted Loans in China's Capital Market", with M. Gupta (Bennet University, India);
8. "Dynamic Principal Component: a new class of Multivariate GARCH models", with G.P. Aielli;
9. "A Capital Asset Pricing Model with Systemic Risk: Some Evidence on the French Market", with M. Costola (University Ca' Foscari Venezia), B. Maillet (EMLyon Business School) and J.C. Garibal (University of Grenoble);
10. "The economic value of long term care insurances", with V. Rebba and N. Zambon (University of Padova);
11. "Vector Random Coefficients and Multivariate GARCH models";

12. “A misspecification test for DCC models”, with R.J. Lucchetti (Polytechnic University of March) and G. Palomba (Polytechnic University of March);
13. “Contagion and volatility jumps”, with F. Lilla (Bank of Italy) and P. Zoi (Bank of Italy);
14. “Penalized CAW models for systemic risk monitoring”, with G. Storti (University of Salerno);
15. “The nexus between currencies and commodities intraday price movements and US macroeconomic news”, with S. Hammodeh (Drexel University), W. Mensi (University of Tunis El-Manar) and A. Sensoy (Bilkent University);

Other publications

1. Quarterly Newsletter “Nuova Previdenza”, IAMA Consulting, Milano; methodology boxes: “Gestioni a benchmark: vincoli e flessibilità”; “Manager diversification or manager competition?”; “Misure di performance innovative basate sui drawdown”; “Misure di performance in presenza di un target return”; “Il ruolo del gestore overlay nei fondi pensione”; “Performance attribution e scelte di gestione”; “Il ruolo e l’indipendenza dell’advisor”; “Le competenze della funzione finanza”;
2. “Analisi delle transizioni nel mercato del lavoro”, with D. Favaro, 2006, Il mercato del lavoro nel Friuli Venezia Giulia, Rapporto 2006, Regione Autonoma Friuli Venezia Giulia, Direzione centrale lavoro, formazione, università e ricerca, Osservatorio regionale sul mercato del lavoro;
3. “Il mercato del lavoro nel Friuli Venezia Giulia: un’analisi empirica basata su dati amministrativi”, 2005, Il mercato del lavoro nel Friuli Venezia Giulia, Rapporto 2005, Regione Autonoma Friuli Venezia Giulia, Direzione centrale lavoro, formazione, università e ricerca, Osservatorio regionale sul mercato del lavoro;

Citations and bibliographic metrics

(last access: July 2022)
Scopus: 93 listed research products, 1214 citations and h-index equal to 20 (1035 citations and h-index 19 if excluding self-citations of all authors)
ISI web of science: 88 listed research products, 970 citations and h-index equal to 17 (770 citations excluding self-citations)

Awards and badges

- Open Badges (by Bestr) released by University of Padova within the Teaching4Learning project on training for teaching innovation and on training for teaching online (click on the images for details)

- Academic supervisor (joint with Cinzia Baldan, University of Padova, Department of Economics and Management) of the University of Padova student team participating the CFA Society Italy Fund Management Challenge, 2018, First Prize;
- Academic supervisor (joint with Cinzia Baldan, University of Padova, Department of Economics and Management) of the University of Padova student team participating the CFA Society Italy Fund Management Challenge, 2017, Second Prize;

- Academic supervisor (joint with Cinzia Baldan, University of Padova, Department of Economics and Management) of the University of Padova student team participating the CFA Society Italy Fund Management Challenge, 2014, Third Prize;
- "Marco Fanno" research prize 2013 awarded by the Department of Economics and Management "Marco Fanno", University of Padova for the papers appeared in 2012 in Energy Economics and in 2013 in the Journal of Financial Econometrics;
- Best poster award (ex aequo) IFABS Conference 2013 for the working paper "Behavioral expectations and financial fluctuations: an analysis based on the S&P 500." Joint with Michele Costola (University Ca' Foscari Venice) and Luca Corazzini (Univeristy of Padova).
- Academic supervisor of the University of Padova student team participating the CFA Society Italy Fund Management Challenge, 2012, First Prize;

Affiliations and roles

Steering Committee: Italian Econometric Association (Società Italiana di Econometria SIDE-IEA)
Board of Directors: European Regional Section of the International Association for Statistical Computing (IASC), 2020-2024;
Member of: International Statistical Institute (ISI); International Association for Statistical Computing (IASC); Italian Statistics Association (SIS); International Institute of Forecasters (IIF); European Finance Association (EFA); Italian Econometric Association (SIdE), International Association for Energy Economics (IAEE).

Conference presentations and seminars

2023: SNDE Conference (Orlando, USA) (contributed); CREST (France) (seminar);
2022: IESEG, Lille (France) (virtual seminar), 3rd Italian Workshop of Econometrics and Empirical Economics (contributed), MAF 2022 Salerno (keynote talk), SIS 2022 Caserta (solicited contribution), SOFIE 2022 Cambridge (contributed), COMPSTAT 2022 Bologna (contributed), IFABS Napoli 2022 (contributed), Frontier on Factor Investing 2022 Lancaster (contributed) CFE 2022 London (contributed), St. Petersburg University (virtual seminar), workshop Systemic Risks in the Financial Sector, Higher School of Economics Moscow (virtual conference);
2021: Italian Congress of Econometrics and Empirical Economics, Cagliari (virtual conference); Collegio Carlo Alberto, Torino (virtual seminar); 37th International Conference of the French Finance Association (AFFI) (virtual conference); 2021 International Association for Applied Econometrics (IAAE) Annual Conference (virtual conference); 63rd World Statistics Congress ISI 2021 (virtual conference); Financial Economics Meeting: Crisis Challenges (Paris – virtual conference); World Finance Conference 2021 (virtual conference); NBER-NSF Time Series Conference (virtual conference); RCEA Time Series Workshop (virtual conference); workshop Systemic Risks in the Financial Sector, Higher School of Economics Moscow (virtual conference); Carlos III University Madrid (seminar); Universidad Autonoma de Madrid (seminar); Computational and Financial Econometrics 2021 (hybrid conference);
2020: Coloquio Virtual AME 2020 (Asociatiòn Mexicana de Estadìstica, Mexico City), plenary speaker (virtual conference); CREATES Aarhus University (Denmark), (virtual seminar), 3rd International Workshop "Systemic Risks in the financial sector" (Moscow), invited speker (virtual conference), Computational and Financial Econometrics Conference (London), speaker in organized session (virtual conference), (EC)^2 2020 Conference, Paris, poster presentation (virtual conference);
2019: Workshop in Financial Econometrics, Nantes; EcoStat 2019 Conference, Taichung, Taiwan; Econometrics in the arena 2019, Verona (invited talk); CFE 2019 Conference, London (invited talk);
2018: MAF 2018 Conference, Madrid, Spain; Universidad Carlos III Madrid, Spain, seminar presentation; 49th Scientific Meeting of the Italian Statistical Society, Palermo, Italy; SoFiE Conference, 11th annual meeting, Lugano, Switzerland; COMPSTAT 2010, Iasi, Romania, CFE2018 Pisa, Italy; Systemic Risks in the Financial Sector, Moscow (keynote talk);

2017: Seventh Italian Congress of Econometrics and Empirical Economics, Messina, Italy; Universidad Complutense Madrid, Spain, seminar presentation; Studies in Nonlinear Dynamics and Econometrics conference, Paris, France; Intermediate meeting of the Italian Statistical Society, Firenze; IFABS Asia 2017, China; International Conference on Energy, Finance and the Macroeconomy, Montpellier, France;
2016: University of Pavia, seminar presentation; IAAE 2016 Conference, Milano, Italy; CFE 2016 Conference, Seville, Spain;
2015: Sixth Italian Congress of Econometrics and Empirical Economics, Salerno, Italy; International Symposium of Forecasting, Riverside, California, USA; Securities and Exchange Commission (SEC), Washington DC, USA, seminar presentation; Financial Risk Forun Institut Louis Bachelier, Parigi; Scuola Normale Superiore Pisa, seminar presentation; SYRTO project conference, Amsterdam; NBER-NSF Time Series Conference, Vienna, 2015; AMASES 2015, Padova; SIS 2015 conference in Treviso; CFE 2015, London; EBS Wiesbaden, Germany, seminar presentation; Goether University Frankfurt, seminar presentation.
2014: Diversification and Risk, QIM-CFA, Venice; ISF 2014, Rotterdam; CREDIT 2014, Venice; CFE 2014 Pisa, Italy; Systemic Risk and Contagion, Bologna;
2013: XIV Workshop on Quantitative Finance, Rimini, Italy; CREST, seminar presentation; University of Bologna, seminar presentation; CREATES, Aarhus University, seminar presentation; CFE 2013 London, UK;
2012: Sovereign risk, fiscal solvency and monetary policy: where do we stand?, Venice, Italy; MAF 2012, Venice, Italy; XLVI Annual Meeting of the Italian Statistical Society, Rome, Italy; Norges Bank, seminar presentation;
2011: Computational and Financial Econometrics, London, UK; SIE Scientific Meeting, Roma; Madrid, Universidad Complutense, seminar; NBER Time Series Conference, East Lansing, USA; Risk Modeling and Management, Madrid, Spain; University of Zurich, seminar; Computational Management Science 2011, Neuchatel, Switzerland; Workshop on Energy markets, Valencia, Spain (invited talk); Fourth Italian Congress of Econometrics and Empirical Economics, Pisa, Italy; XII Workshop on Quantitative Finance, Padova, Italy;
2010: Computational and Financial Econometrics, London, UK; XLV Annual Meeting of the Italian Statistical Society, Padova, Italy; Annual Symposium of the Society for Studies in Non Linear Dynamics and Econometrics, Novara, Italy; Third Congress of the Thailand Econometric Society, Chiang Mai, Thailand (invited talk); XI Workshop on Quantitative Finance, Palermo, Italy;
2009: Computational and Financial Econometrics, Limassol, Cyprus; FERC Conference oh High Frequency Finance, Warwick, UK; Computational Management Science, Genève, Switzerland; Humboldt-Copenhagen Recent Developments in Financial Econometrics, Berlin, Germany; Third Italian Congress of Econometrics and Empirical Economics, Ancona, Italy
2008, MAF-SER2008, Venice, Italy;
2007: Computational and Financial Econometrics, Genève, Switzerland; Second Italian Congress of Econometrics and Empirical Economics, Rimini, Italy;
2006: European Meeting of the Econometric Society, Vienna, Austria; TSEFAR Conference, Perth, Australia; XLIII Annual Meeting of the Italian Statistical Society, Torino, Italy; SER2006, Roma, Italy;
2005: CSDA IASC Conference, Cyprus; COFIN2002, Bressanone, Italy; Workshop of the Journal of Applied Econometrics, Venice, Italy; Frontiers in Benchmarking Techniques and Their Application to Official Statistics, Luxembourg; First Italian Congress of Econometrics and Empirical Economics, Venice, Italy;
2004: Workshop on High Frequency Data, Perugia, Italy; Forecasting Financial Markets, Paris, France; XLII Annual Meeting of the Italian Statistical Society, Bari, Italy; Second European Deloitte Conference in Risk Management, Antwerp, Belgium;

2003: SCO2003, Complex Models and Computational Methods, Treviso, Italy; Workshop on High Frequency Data, Siena, Italy; Forecasting Financial Markets, Paris, France;
2002: ASSET2002, Cyprus; XLI Annual Meeting of the Italian Statistical Society, Milan, Italy.

Conference related activities
- Computational and Financial Econometrics, CFE, member of the Scientific Program Committee for the editions: 2020, 2021 and 2022;
- International Conference on Information Technology and Quantitative Management, member of the Program Committee for the editions: 2021 and 2022;
- Discussant/Referee: CIDE/Side Workshop for PhD students in Econometrics (WEEE), from 2013 to present;
- 1st International Conference on Frontiers in International Finance and Banking, Moscow State Institute of International Relations (MGIMO University), 2021, member of the Program Committee;
- 50th Scientific Meeting of the Italian Statistical Society, Pisa 2021, member of the Program Committee;
- International Association for Mathematics and Computers in Simulation Congress, IMACS 2020, member of the Local Charing Committee (postponed to 2021);
- Credit 2019 conference Venezia, discussant of "Climate risk and stock returns" by E. Carnemolla and G. Vinci;
- Scientific Program Committee, First International Conference on Energy, Finance and the Macroeconomy (ICEFM) Montpellier, France, 2017;
- Scientific Program Committee, Italian Congress of Econometris and Empirical Economics 2017, Messina, Italy;
- Discussant: Financial Risk Forum 2015, Institut Louis Bachelier, Paris, France;
- Scientific Program Committee, Computational and Financial Econometrics, 2014, Pisa;
- Credit 2013 conference Venezia, discussant of "Liquidity and price impacts of financial distress: evidence from the market of defaulted bonds" by S. Han and K. Wang;
- Scientific committee, XIV Workshop in Quantitative Finance, 2013, Rimini;
- Scientific committee, XIII Workshop in Quantitative Finance, 2012, L'Aquila;
- Credit 2012 conference Venezia, discussant of "A theoretical and empirical comparison of systemic risk measures" by S. Benoit, G. Colletaz, C. Hurlin and C. Pérignon;
- Scientific and organizing committee, XII Workshop in Quantitative Finance, 2011, Padova;
- Credit 2010 conference Venezia, discussant of "Volatility, Correlations and Tails for Systemic Risk Measurement" by C. Brownlees e R.F. Engle;
- Scientific Committee of the XI Conference in Quantitative Finance, 2010, Palermo, Italy;
- Referee, European Finance Association Conferences, EFA2006, EFA2007, EFA2008, and EFA2009;
- Scientific Committee ASSET2007 (Padova, 1-3 November 2007).

Referee and Editorial activities
From January 2022, Associate Editor (Methods) of Statistical Methods & Applications
From May 2018, Associate Editor of the European Journal of Finance
From September 2013, Associate Editor of Annals of Financial Economics
From September 2013, Associate Editor of Journal of Risk and Financial Management
From June 2013, Associate Editor of Econometrics
From September 2012: Associate Editor of Journal of Reviews of Global Economics
From June 2012: Associate Editor of Brazilian Journal of Business Economics
From June 2011: Associate Editor of Mathematics and Computers in Simulations
From November 2019 to July 2022, Associate Editor of Open Statistics
From June 2012 to January 2015: Associate Editor of Stat

Referee for: Journal of Econometrics, Journal of Applied Econometrics, Journal of Business and Economic Statistics, Journal of Financial Econometrics, Journal of the Royal Statistical Society, Review of Finance, Journal of Banking and Finance, Journal of Empirical Finance, Energy Economics, Computational Statistics and Data Analysis, Econometric Reviews, European Journal of Operations Research, Econometrics Journal, International Journal of Forecasting, Quantitative Finance, Journal of Financial Markets, Statistica Neerlandica, Plos ONE, Journal of International Financial Markets Institutions and Money, Studies in Nonlinear Dynamics and Econometrics, Operations Research, European Journal of Finance, Manchester School, South African Journal of Economics, International Review of Economics and Finance, Applied Energy, Mathematics and Computers in Simulations, Bulletin of Economic Research, Economic Modelling.

External evaluator for research projects, call for grants and promotions: Swiss National Science Foundation, Portuguese Statistical Society, Research Grants Council of Hong Kong, Fonds de la Recherche Scientifique, Italian Ministry for University and Research (MIUR).

Ph.D. and post-doc supervision, committees and referees:

PhD in Statistics, Department of Statistics, University of Padova, supervised student:
- Fariborz Setoudeh, topic "Mixture GARCH models, time series clustering and applications in portfolio risk and asset management", defending second semester 2023;
- Marco Girardi, topic "Returns and realized covariance modeling: COMFORT, HEAVY and Multiplicative RCOV models, the role of news and applications of risk management and portfolio allocation", defending first semester 2023;
- Shaowen Liu, topic "Estimating dynamic networks with state space models", defended second semester 2021;
- Mohammed Elseidi, topic "Quantile regression-based seasonal adjument", defended first semester 2020, actual position, Lecturer, Mansoura University, Egypt;
- Giovanni Bonaccolto, topic "Quantile regression applications in finance", defended first semester 2016, actual position: Associated Professor, University Kore Enna;

PhD in Economics and Management, Department of Economics and Management "Marco Fanno", University of Padova, supervised students:
- Zahra Mohammadi Nikpour, co-supervisor (main supervisor Prof. Paola Valbonesi), topic "The economics of conflicts", defended first semester 2020;
- Francesco Poli, thesis "News and the cross-sectional and geographical diffusion of jumps with a link to systemic risks", defended in the second semester of 2017;
- Nancy Zambon, thesis "Pricing and risk management implications of jump, co-jumps and multi-jumps", defended in the first semester of 2017, actual position: post-doc researcher, University of Padova, Department of Economics and Management;
- Mayank Gupta, thesis "Efficiency and diversification in emerging and frontier markets", defended in the first semester of 2016;
- Michele Costola, thesis "Essays in financial econometrics", defended in the second semester of 2013; actual position Assistant Professor, University Ca' Foscari Venezia;
- Gabriel Gonzalo Velo, thesis "Realized Volatility: Macroeconomic determinants, Forecasting and Option trading", defended in January 2012; actual position, Moody's Analytics, London;

Co-supervision of PhD students in foreign institutions:
- Runfeng Yang, Universidad Complutense de Madrid (Spain);
- Oumayma Ayari, Université de Tunis El Manar (Tunisie);

Post-doc research grants:
- 2020-2022, supervisor of Francesco Poli, posti-doc research grant within the project "HiDEA: Advanced Econometrics for High-frequency Data";
- 2016, supervisor of Giovanni Bonaccolto, post-doc research grant within the project "Multi-jumps in financial asset prices: detection of systemic events, relation with news, and implications for pricing";
- 2011-2013, supervisor of Gabriel Velo, post-doc research grant on financial econometrics and high frequency data;
- 2010/2011, supervisor of Paolo Santucci de Magistris (now Associate Professor, Luiss University, Rome) for the post-doc research grant "Informatics instruments for market risk measurement by high frequency data";
- 2010/2011, supervisor of Gian Piero Aielli for the post-doc research grant "Informatics instruments for optimal portfolio allocation";

PhD/Master committees and referee activity:
- 2019 Complutense University of Madrid, member of the PhD committee for the defences of Javier Ojea Ferreiro;
- 2017 Complutense University of Madrid, member of the PhD committee for the defence of Laura Garcia Jorcano;
- 2017 University of Padova, Department of Statistical Sciences, member of the PhD defence committees in Statistics;
- 2016 University Ca' Foscari Venezia, member of the PhD committee for the defense of Komla Mawulom Agudze;
- 2016 external referee for the dissertation of Shatha Hashem, PhD candidate in Economics and Management of Technology, University of Pavia;
- 2016 external referee for the dissertation of Andrea Bucci, PhD candidate in Economics Policy, Università Politecnica delle Marche;
- 2014 University Ca' Foscari Venezia and Paris I – Sorbonne University (joint program), member of the PhD Committee for the defense of Lorenzo Frattarolo;
- 2014 Paris I – Sorbonne, external member of the PhD Committee for the defense of Peter Addo;
- 2014 New Economic School Moscow, reviewer for the Master Dissertation of Mikhail Makhyanov, "Modeling vast-dimensional joint density using spatial copulas";
- 2011 Paris I – Sorbonne, external member of the PhD Committee for the defense of Ludovic Cales;
- 2010, member of the examination committee of the Doctorate in Economics, XXI and XXII edition, University of Milano;
- 2009, Doctor of Philosophy, University of Western Australia, Referee, 1 dissertation;

Research interests
- financial econometrics, financial time series analysis; quantitative methods for empirical finance, and empirical economics;
- market risk measurement and systemic risk measurement through dynamic models;
- multivariate models for financial market variances: GARCH, stochastic volatilities and their extensions; feasible parameterisations and efficient multi-step estimation approaches; application in asset allocation and market risk measurement; robust methods for model comparison; the curse of dimensionality; common patterns in the conditional variances; causality in variances; range based models;
- long term investment strategies: optimal strategies for agents with short term liquidity constraints; performance evaluation of long term investment plans and strategies; robust and optimal choice of agents optimizing criteria;

- active portfolio management: quantitative based strategies; performance evaluation of actively managed funds; style analysis and adherence to the benchmarks;
- high frequency data: conditional duration models, multivariate approaches and their possible application in high frequency quantitative trading; market microstructure and empirical analysis of market efficiency;
- spatial econometrics methods in finance; quantile regression methods in economics and finance;
- weather and energy derivatives modelling and pricing; quantitative methods in energy economics and energy finance.

Padova, 7 December 2022