

FRANCESCO RAVAZZOLO

Tel: +39 0471 013133 - E-mail: francesco.ravazzolo@unibz.it; francesco.ravazzolo@bi.no

PROFESSIONAL EXPERIENCES

- Apr/12-Present **BI Norwegian Business School**
 - Oct/21-Present **Head of Department of Data Science and Analytics**
 - Jan/16- Present **Visiting Professor at Centre for Applied Macro and Petroleum Economics (CAMP)**
 - Jul/14- Dec/15 **Adjunct Professor**
 - Apr/12- Jun/14 **Researcher II**
- Jan/16-Present **Free University of Bozen-Bolzano**
 - Jan/22- Present **Full Professor of Econometrics (Tempo definito)**
 - Oct/18- Dec/21 **Full Professor of Econometrics**
 - Apr/21- Dec/21 **Coordinator of the PhD Program in Economics and Finance**
 - Oct/18- Sep/21 **Head of Research Cluster in Quantitative Methods and Economic Modeling**
 - Jan/16- Sep/18 **Associate Professor of Econometrics**
- May/23-Present **Founder, Commodia**
- Jun/21-Present **Founder, AIAQUA**
- Sep/20-Aug/26 **Senior Fellow of the Rimini Centre for Economic Analysis (RCEA).**
- Sep/07-Dec/15 **Norges Bank.**
 - Aug/14- Dec/15 **Principal Researcher**
 - Jul/11- Jul/14 **Senior Researcher**
 - Sep/07- Jun/11 **Researcher**
- Sep/10-Present **Center for Applied Macroeconomic Analysis (CAMA) Research Associate, Australian National University**
- Mar/03-Jul/03 **Research Analyst, Greta Consulting, Venice**

EDUCATION

- Sep/03-Aug/07 **PhD in Economics, Erasmus University Rotterdam.**
- Oct/98-Dec/02 **Laurea in Economics & Business, Ca' Foscari University of Venice.**

JOURNAL PUBLICATIONS

61. Durante, F., A. Gatto and F. Ravazzolo (2024), "Understanding relationships with the Aggregate Zonal Imbalance using copulas". *Statistical Methods & Applications*, 24, 513-544.
60. Baltodano Lopez, O.A., G. Bulfone, R. Casarin and F. Ravazzolo (2023), "Corporate CDS spreads from the Eurozone crisis to COVID-19 pandemic: A Bayesian Markov switching model". *Studies in Nonlinear Dynamics and Econometrics*, forthcoming.
59. Asimakopoulos, S., M. Lorusso and F. Ravazzolo (2023), "A New Economic Framework: A DSGE Model with Cryptocurrency". *Review of Economic Dynamics*, forthcoming.
58. Galdi, G., R. Casarin, D. Ferrari, C. Fezzi and F. Ravazzolo (2023), "Nowcasting industrial production using linear and non-linear models of electricity demand". *Energy Economics*, forthcoming.
57. Fronzetti Colladon, A., F. Grippa, B. Guardabascio, G. Costante and F. Ravazzolo (2023), "Forecasting consumer confidence through semantic network analysis of online news". *Scientific Reports*, 13, 11785.
56. Miroshnychenko, I., G. Vocellelli, A. De Massis, S. Grassi and F. Ravazzolo (2023), "The COVID-19 pandemic and family business performance". *Small Business Economics*, forthcoming.
55. Billé, A.G., A. Tomelleri and F. Ravazzolo (2023), "Forecasting Regional GDPs: a Comparison with Spatial Dynamic Panel Data Models". *Spatial Economic Analysis*, 18(4), 530-551.
54. Foroni, C., F. Ravazzolo and L. Rossini (2023), "Forecasting daily electricity prices with monthly macroeconomic variables". *Economic Modelling*, 120, 106-160.
53. Casarin, R, S. Grassi, F. Ravazzolo and H.K. van Dijk (2023), "A Flexible Predictive Density Combination for Large Financial Data Sets in Regular and Crisis Periods". *Journal of Econometrics*, 237(2), 105370.

52. Bashiri Behmiri, N., C. Fezzi and F. Ravazzolo (2023), "Incorporating air temperature into mid-term electricity load forecasting models using time-series regressions and neural networks", *Energy*, 278, 127831.
51. Iacopini, M., F. Ravazzolo and L. Rossini (2023), "Proper Scoring Rules for Evaluating Asymmetry in Density Forecasting". *Journal of Business and Economic Statistics*, 2, 482-496.
50. Gianfreda, A., F. Ravazzolo and L. Rossini (2023), "Large Time-Varying Volatility Models for Electricity Prices". *Oxford Bulletin of Economics and Statistics*, 85(3), 545-573.
49. Billé, A.G., A. Gianfreda, F. Del Grosso and F. Ravazzolo (2022), "Forecasting Electricity Prices with Expert, Linear and Non-Linear Models". *International Journal of Forecasting*, 39, 570-586.
48. Fronzetti Colladon, A., S. Grassi, F. Ravazzolo and F. Violante (2022), "Forecasting Financial Markets with Semantic Network Analysis in the COVID-19 Crisis". *Journal of Forecasting*, 42(5), 1187-1204.
47. Durante, F., A. Gianfreda, F. Ravazzolo and L. Rossini (2022), "A Multivariate Dependence Analysis for Electricity Prices, Demand and Renewable Energy Sources". *Information Science*, 590, 74-89.
46. Avesani, D, A. Zanfei, N. Di Marco, A. Galletti, F. Ravazzolo, M. Righetti and B. Maione (2022), "Short-term hydropower optimization driven by innovative time-adapting econometric model", *Applied Energy*, 38, 118-510.
45. Agudze, K. M., M. Billio, R. Casarin and F. Ravazzolo (2022), "Markov Switching Panel with Network Interaction Effects". *Journal of Econometrics*, 230(2), 281-298.
44. Ferrari, D., F. Ravazzolo and J. Vespignani (2021), "Forecasting Energy Commodity Prices: A Large Global Dataset Sparse Approach". *Energy Economics*, 98, 105-268.
43. Caporin, M., R. Gupta and F. Ravazzolo (2021), "Contagion between Real Estate and Financial Markets: A Bayesian Quantile-on-Quantile Approach". *North American Journal of Economics and Finance*, 55, 1-12.
42. Gianfreda, A., F. Ravazzolo and L. Rossini (2020), "Comparing the Forecasting Performances of Linear Models for Electricity Prices with High RES Penetration". *International Journal of Forecasting*, 36(3), 974-986.
41. Casarin, R, F. Corradin, F. Ravazzolo and D. Sartore (2020), "A Scoring Rule for Factor and Autoregressive Models under Misspecification". *Advances in Decision Sciences*, 24(2), 1-37.
40. Ravazzolo, F. and J.L. Vespignani (2020), "A New Monthly Indicator of Global Real Economic Activity". *Canadian Journal of Economics*, 53(2), 743-766.
39. Furlanetto, F., F. Ravazzolo and S. Sarferaz (2019), "Identification of financial factors in economic fluctuations", *Economic Journal*, 129(617), 311-337.
38. Caporin, M., G. Natvik, F. Ravazzolo and P. Santucci de Magistris (2019), "The Bank-Sovereign Nexus: Evidence from a non-Bailout Episode", *Journal of Empirical Finance*, 53, 181-196.
37. Limongi Concetto, C. and Ravazzolo, F. (2019), "Optimism in Financial Markets: Stock Market Returns and Investor Sentiments". *Journal of Risk and Financial Management*, 12, 85.
36. Catania, L., S. Grassi and F. Ravazzolo (2019). "Forecasting Cryptocurrencies under Model and Parameter Instability". *International Journal of Forecasting*, 39(2), 485-501.
35. Casarin, R., C. Feroni, M. Marcellino and F. Ravazzolo (2019), "Uncertainty Through the Lenses of a Mixed-Frequency Bayesian Panel Markov Switching Model". *Annals of Applied Statistics*, 12(4), 2559-2586.
34. Bassetti, F., R. Casarin and F. Ravazzolo (2018), "Bayesian Nonparametric Calibration and Combination of Predictive Distributions", *Journal of American Statistical Association*, 113(522), 675-685.
33. Caporin, M., L. Pelizzon, F. Ravazzolo and R. Rigobon (2018), "Measuring Sovereign Contagion in Europe", *Journal of Financial Stability*, 34, 150-181.
32. Feroni, C., F. Ravazzolo and B. Sadaba (2018), "Assessing the Predictive Ability of Sovereign Default Risk on Exchange Rate Returns", *Journal of International Money and Finance*, 81, 241-264.
31. Aastveit, K.A., F. Ravazzolo and H.K. van Dijk (2018), "Combined Density Nowcasting in an Uncertain Economic Environment". *Journal of Business and Economic Statistics*, 36(1), 131-145.
30. Bianchi, D., M. Guidolin, and F. Ravazzolo (2018), "Dissecting the 2007-2009 real estate market bust: systematic pricing correction or just a housing fad?", *Journal of Financial Econometrics*, 16(1), 34-62.
29. Lerch, S., T. Thorarinsdottir, F. Ravazzolo and T. Gneiting (2017), "Forecaster's Dilemma: Extreme Events and Forecast Evaluation", *Statistical Science*, 32(1), 106-127.
28. Bjørnland, H.C., F. Ravazzolo and L. A. Thorsrud (2017), "Forecasting GDP with Global Components. This time is different", *International Journal of Forecasting*, 33(1), 153-173.

27. Bianchi, D., M. Guidolin, and F. Ravazzolo (2017), "Macroeconomic Factors Strike Back: A Bayesian Change-Point Model of Time-Varying Risk Exposures and Premia in the U.S. Cross-Section", *Journal of Business and Economic Statistics*, 35(1), 110-129.
26. Aastveit, K.A., C. Foroni and F. Ravazzolo (2017), "Density forecasts with MIDAS models", *Journal of Applied Econometrics*, 32(4), 783–801.
25. Kruger, F., T. Clark and F. Ravazzolo (2017), "Using Entropic Tilting to Combine BVAR Forecasts with External Nowcasts". *Journal of Business and Economic Statistics*, 35(3), 470-485.
24. Lombardi, M. and F. Ravazzolo (2016), "On the correlation between commodity and equity returns: implications for portfolio allocation", *Journal of Commodity Markets*, 2(1), 45-57.
23. Ravazzolo, F. and P. Rothman (2016), "Oil-price Density Forecasts of US GDP". *Studies in Nonlinear Dynamics and Econometrics*, 20(4), 441-453.
22. Casarin, R. and Ravazzolo, F., (2016), "A discussion on: Of Quantiles and Expectiles: Consistent Scoring Functions, Choquet Representations, and Forecast Ranking", by W. Ehm, T. Gneiting, A. Jordan, and A. Krueger. *Journal of the Royal Statistical Society, Series B*, 78(3), 538-539.
21. Casarin, R., G. Mantoan and F. Ravazzolo (2016), "Bayesian Calibration of Generalized Pools of Predictive Distributions", *Econometrics*, 4(1), 17.
20. Aastveit, K.A., A.S. Jore and F. Ravazzolo (2016), "Identification and real-time forecasting of Norwegian business cycles", *International Journal of Forecasting*, 32(2), 283-292.
19. Pettenuzzo, D. and F. Ravazzolo (2016), "Optimal Portfolio Choice under Decision-Based Model Combinations". *Journal of Applied Econometrics*, 31(7), 1312:1332.
18. Billio M., R. Casarin, F. Ravazzolo and H.K. van Dijk (2016), "Interactions between Eurozone and US Booms and Busts: A Bayesian Panel Markov-switching VAR Model", *Journal of Applied Econometrics*, 31(7), 1352:1370.
17. Casarin, R, S. Grassi, F. Ravazzolo and H.K. van Dijk (2015), "Parallel Sequential Monte Carlo for Efficient Density Combination: the DeCo Matlab Toolbox", *Journal of Statistical Software*, 68(3).
16. Clark T. and F. Ravazzolo (2015), "The Macroeconomic Forecasting Performance of Autoregressive Models with Alternative Specifications of Time-Varying Volatility", *Journal of Applied Econometrics*, 30(4), 551-575.
15. Monticini, A. and F. Ravazzolo (2014), "Forecasting the Intraday Price of Money", *Journal of Empirical Finance*, 29, 304-315.
14. Martisen K., F. Ravazzolo and F. Wulfsberg (2014), "Forecasting Macroeconomic Variables Using Disaggregate Survey Data", *International Journal of Forecasting*, 30(1), 65-77.
13. Ravazzolo F. and S.P. Vahey (2014), "Forecast Densities for Economic Aggregates from Disaggregate Ensembles", *Studies in Nonlinear Dynamics and Econometrics*, 18(4), 367–381.
12. Billio M., R. Casarin, F. Ravazzolo and H.K. van Dijk (2013), "Time-varying Combinations of Predictive Densities using Nonlinear Filtering", *Journal of Econometrics*, 177(2), 213-232.
11. Guidolin M., F. Ravazzolo and A. Donato Tortora (2013), "Alternative Econometric Implementations of Multi-Factor Models of the US Financial Markets", *Quarterly Review of Finance and Economics*, 53(2), 87-111.
10. Groen, J.J.J., R. Paap and F. Ravazzolo (2013), "Real-time Inflation Forecasting in a Changing World", *Journal of Business and Economic Statistics*, 31(1), 29-44.
9. Guidolin M., F. Ravazzolo and A. Donato Tortora (2013), "Myths and Facts about the Alleged Over-Pricing of U.S. Real Estate", *Journal of Real Estate Economics and Finance*.
8. Ravazzolo F. and P. Rothman (2012), "Oil and US GDP: A Real-time Out-Of-Sample Examination", *Journal of Money, Credit and Banking*, 45(2-3), 449-463.
7. Billio M., R. Casarin, F. Ravazzolo and H.K. van Dijk (2012), "Combination Schemes for Turning Point Predictions", *Quarterly Review of Finance and Economics*, 52(4), 402-412.
6. Hoogerheide L., F. Ravazzolo and H.K. van Dijk (2012), "Backtesting Value-at-Risk Using Forecasts for Multiple Horizons: a Comment on the Forecast rationality Tests Based on Multi-horizon Bounds by A.J. Patton and A. Timmermann", *Journal of Business and Economic Statistics*, 30(1).
5. Huurman C., F. Ravazzolo and C. Zhou (2012), "The Power of Weather", *Computational Statistics and Data Analysis*, 56(11), 3793-3807.
4. Ravazzolo F. and Ø. Røisland (2011), "Why Do People Give Less Weight to Advice the Further It Is from their Initial Opinion?", *Economics Letters*, 112(1), 63-66.
3. Kascha C. and F. Ravazzolo (2010), "Combining Inflation Density Forecasts", *Journal of Forecasting* 29, 231-250.

2. Hoogerheide L., R. Kleijn, F. Ravazzolo, H.K. van Dijk and M. Verbeek (2010), "Forecast Accuracy and Economic Gains from Bayesian Model Averaging using Time-varying Weights", *Journal of Forecasting* 29, 251-269.
1. De Pooter M., F. Ravazzolo, R. Segers and H.K. van Dijk (2008), "Bayesian Near-boundary Analysis in Basic Macroeconomic Time Series Models", *Advances in Econometrics* 23, 331-432.

BOOK CONTRIBUTIONS

5. Bassetti, F, R. Casarin and F. Ravazzolo (2020). "Density Forecasting". In Fuleky, P. (eds) *Macroeconomic Forecasting in the Era of Big Data*, Springer.
4. Aastveit, K.A., J. Mitchell, F. Ravazzolo and H.K. van Dijk (2020). "The Evolution of Forecast Density Combinations in Economics", *Oxford Research Encyclopedia of Economics and Finance*.
3. Catania L., Grassi S., Ravazzolo F. (2018) Predicting the Volatility of Cryptocurrency Time-Series. In: Corazza M., Durbán M., Grané A., Perna C., Sibillo M. (eds) *Mathematical and Statistical Methods for Actuarial Sciences and Finance*. Springer.
2. Bache I. W., J. Mitchell, F. Ravazzolo, and S. P. Vahey (2010). "Macro Modeling with Many Models", in D. Cobham, Ø. Eitrheim, S. Gerlach, and J. Qvigstad (Eds.), *Twenty Years of Inflation Targeting: Lessons Learned and Future Prospects*. Cambridge University Press, 398-418.
1. Ravazzolo F., R. Paap, D. van Dijk and P.H. Franses (2008), "Bayesian Model Averaging in the Presence of Structural Breaks", in M. Wohar and D. Rapach (eds.), *Forecasting in the Presence of Structural Breaks and Model Uncertainty – Frontiers of Economic and Globalization Series Vol.3*, Emerald Publishing Group, 561-594.

PROCEEDINGS AND OTHER PUBLICATIONS

3. Casarin, R., Gneiting T. and Ravazzolo, F., (2014). "Probabilistic Calibration of Predictive Distributions", *Proceedings of the XLVII Scientific Meeting of the Italian Statistical Society*, Cagliari, CUEC.
2. Ravazzolo F. and S. P. Vahey (2009). "Measuring Core Inflation in Australia with Disaggregate Ensembles", *Proceedings of 2009 RBA Conference*, 178-195.
1. Billio M., R. Casarin, F. Ravazzolo and H.K. van Dijk (2011), "Bayesian Combinations of Stock Prices Predictions with an Applications to the Amsterdam Exchange index", *Medium for Econometric Applications*.

BOOKS

2. Bernardi, M, S. Grassi and F. Ravazzolo (2020). "Bayesian Econometrics". MDPI AG.
1. Ravazzolo F. (2007). "Forecasting Financial Time Series Using Model Averaging", *Tinbergen Institute Research Series* 415.

WORKING PAPERS

- Lorusso, M., F. Ravazzolo and C. Udroui (2024), "Fiscal stimuli: Monetary versus Fiscal Financing", *BEMPS - Bozen Economics & Management Paper Series BEMPS 105*.
- Bashiri Behmiri, N., C. Fezzi and F. Ravazzolo (2023), "Renewable Sources and Short-To Mid-Term Electricity Price Forecasting". SSRN.
- Ravazzolo, F. and L. Rossini (2023), "Is the Price Cap for Gas Useful? Evidence from European Countries". FEEM Working paper Nota di Lavoro 023.2023.
- Bjørnland, H.C., R. Casarin, M. Lorusso and F. Ravazzolo (2023), "Fiscal Policy Regimes in Resource-Rich Economies". *CAMP Working Paper Series 13/2023*.
- Grassi, S., F. Ravazzolo, J. Vespignani and G. Vocalelli (2023), "Global money supply and energy and non-energy commodity prices: A MS-TV-VAR approach". *BEMPS - Bozen Economics & Management Paper Series BEMPS100*.
- Ditzen, J. and F. Ravazzolo (2022), "Dominant Drivers of National Inflation". *ArXiv*.
- Iacopini, M., F. Ravazzolo and L. Rossini (2022), "Bayesian Multivariate Quantile Regression with alternative Time-varying Volatility Specifications". *ArXiv*.
- Boni, S. and F. Ravazzolo (2022), "A Structural Analysis of Unemployment-Generating Supply Shocks with an Application to the US Pharmaceutical Industry". *BEMPS - Bozen Economics & Management Paper Series BEMPS94*.
- Diwambuena, J. and F. Ravazzolo (2021), "Identification of Labour Market Shocks". *BEMPS - Bozen Economics & Management Paper Series BEMPS86*.

- Grassi, S., M. Lorusso and F. Ravazzolo (2021), "Adaptive Importance Sampling for DSGE Models". BEMPS - Bozen Economics & Management Paper Series BEMPS84.
- Banbura, M., F. Brenna, J. Parades and F. Ravazzolo (2021), "Combining Bayesian VARs with Survey Density Forecasts: Does it Pay Off?". ECB Working Paper Series No 2543.
- Ravazzolo, F., T. Sveen and S. K. Zahiri (2016), "Commodity Futures and Forecasting Commodity Currencies". *CAMP working paper 7/2016*.
- Foroni, C., F. Ravazzolo and P. J. Ribeiro (2015), "Forecasting Commodity Currencies: the Role of Fundamentals with Short-lived Predictive Content". *Norges Bank working paper 14/2015*.
- De Pooter, M., F. Ravazzolo and D. van Dijk (2010), "Term Structure Forecasting using Macro Factors and Forecast Combination", *Norges Bank working paper 2010/01*.
- De Pooter, M., F. Ravazzolo and D. van Dijk (2007), "Predicting the Term Structure of US Interest Rates", *Tinbergen Institute working paper 07-028/4*.
- van Dijk D., P.H. Franses and F. Ravazzolo (2007), "Evaluating real-time Forecasts in Real-time", *Econometric Institute Report EI2007-33*.
-

TEACHING EXPERIENCES

- Jun/24 7th Forecasting summer school at 44th ISF, Dijon.
 - Aug/20, Aug/22 Advanced Bayesian Econometrics: Bayesian Multivariate Models and Forecasting in Economics and Finance; SIdE PhD course.
 - Nov/19- Present Financial Econometrics; master course, Free University of Bozen-Bolzano.
 - Dec/17-Present Quantitative Research Methods; PhD course, Free University of Bozen-Bolzano.
 - Feb/17 Applied Econometrics Methods; PhD course, Free University of Bozen-Bolzano.
 - Sep/16, Aug/18 Advance Bayesian Econometrics; SIdE PhD course.
 - Feb/16- Present Econometrics; bachelor course, Free University of Bozen-Bolzano.
 - Jun/14 Central bankers' course on Monetary Policy and Commodity Price; External lecture; Study Center Gerzensee.
 - Feb/13 Bayesian Inference and MCMC Simulation Methods; BI Norwegian Business School.
 - Feb/10 The Term Structure of Interest Rates: Definitions, Models and Applications; University of Venice.
 - Sep/05-Aug/07 Assistant lecturer in Microeconomics and Markets; International Business Administration Bachelor program, Erasmus University Rotterdam.
-

EDITORIAL WORK AND OTHER AFFILITATION

- Mar/24-Present **President of the Society of Nonlinear Dynamics and Econometrics.**
 - Feb/24-Present **Co-editor for Spatial Economic Analysis.**
 - Jul/21-Present **Organizer of the Italian Econometric Association Summer School.**
 - Jul/20-May/24 **Member of the Steering Committee of the Italian Econometric Association.**
 - Oct/20 **Guest Editor for Journal of Risk and Financial Management.**
 - Oct/17-Mar/24 **Member of the Executive Committee of the Society of Nonlinear Dynamics and Econometrics.**
 - Mar/16--Present **Member of the Editorial Board for Econometrics.**
 - Jan/16 **Guest Editor for Econometrics.**
 - Sep/16-Present **Associate Editor for International Journal of Forecasting.**
 - Nov/15-Present **Associate Editor for Studies in Nonlinear Dynamics and Econometrics.**
 - Oct/15-Sep/23 **Associate Editor for Journal of Applied Econometrics.**
 - Oct/13-Present **Associate Editor for Annals of Applied Statistics.**
-

PHD ADVISORY COMMITTEE AND SUPERVISOR

- 2024:Claudia Udroui, Free University of Bolzano-Bozen.

- 2023: Federica Brenna, KU Leuven.
- 2022: Josue Mabulango Diwambuena, Free University of Bozen-Bolzano; Olli Palmén, University of Helsinki.
- 2021: Filippo Dal Grosso, Free University of Bozen-Bolzano; Friederike Hertweck, Free University of Bozen-Bolzano.
- 2018: Francesco Corsello, Bocconi University; Valerio Nispi Landi, Bocconi University.
- 2017: Luis Uzeda, Australian National University; Changhan Hou, Australian National University.
- 2016: Komla Mawulom Agudze, Ca' Foscari University of Venice; Barbara Maria Sadaba, Erasmus University Rotterdam and Tinbergen Institute.
- 2015: Daniel Felix Ahelegbey, Ca' Foscari University of Venice.
- 2014: Leif Anders Thorsrud, BI Norwegian Business School; Benjamin Wong, Australian National University.

CONFERENCE AND WORKSHOP ORGANIZER

- Jun/24 **Fourth Dolomiti Macro Meetings**, Castelrotto (BZ), Italy.
- Jun/23 **Third Dolomiti Macro Meetings**, San Candido (BZ), Italy.
- Jun/23 **International Association for Applied Econometrics (IAAE) Annual Conference**, BI Norwegian Business School, Oslo, Norway,
- Apr/23 Bolzano-Waseba **Workshop on Statistics & Time Series Analysis**, Selva Val Gardena (BZ), Italy.
- Jun/22 **Second Dolomiti Macro Meetings**, Selva Val Gardena (BZ), Italy.
- Dec/21 Free University of Bozen-Bolzano **The First Applied Workshop of Micro- and Macroeconomic**
- Dec/20 Free University of Bozen-Bolzano workshop: **Learning Tools and Applied Quantitative Methods for Decision Making**
- Dec/19 CAMA-CAMP-RBA workshop: **International Economic Flows: Energy, Finance, Diplomacy and Market Structures**
- Nov/19 Free University of Bozen-Bolzano **Energy Day**.
- Jun/19 **First Dolomiti Macro Meetings**, Castelrotto (BZ), Italy.
- Jul/18 Free University of Bozen-Bolzano **Workshop on Energy Economics**.
- Dec/17 CAMA workshop: **Applied Macroeconometric Workshop**.
- Oct/16 7th **Annual ESOBE meeting**, Venice, Italy.
- Sep/16 Free University of Bozen-Bolzano workshop: **Forecasting in Finance and Macroeconomics**.
- Dec/15 University of Melbourne workshop: **Bayesian Analysis and Modeling Summer Workshop**.
- Mar/15 **23rd Annual Symposium of the Society for Nonlinear Dynamics and Econometrics**.
- Jun/14 CAMP workshop: **Commodity Price Dynamics and Financialization**.
- Aug/13 4th **Annual ESOBE meeting**, Oslo, Norway.
- May/13 CAMP workshop: **Oil and Macroeconomics**.
- Mar/13 ECB and Norges Bank joint workshop: **Monetary Policy and Commodity Prices**.
- Mar/12 Norges Bank conference: **Modeling and Forecasting Oil Prices**.
- Aug/11 5th **JEuBES meeting**, Oslo, Norway.
- May/11 ICEF workshop: **Density Forecasting**.
- Jun/10 Norges Bank conference: **Recent Developments in the Econometrics of Macroeconomics and Finance**.
- Nov/07 Tinbergen workshop: **Modelling and Managing Risk**.

VISITING PROGRAMS

- Dec/13 **Centre for Applied Macroeconomic Analysis, Australian National University.**
- Oct/10 – Apr/12 **Norwegian School of Management, Department of Economics.**
- Mar/10 **Centre for Applied Macroeconomic Analysis, Australian National University.**
- Nov/08 **DNB visiting scholar program.**
- July/08 **Reserve Bank of New Zealand.**
- May/07-Aug/07 **Marie Curie Early Stage Training fellowship at Manchester Business School.**

EXTERNAL FUNDING

- Nov/22-Dec/25 **INEST, spoke Ecosystems for Mountain Innovations**, MIUR and Next EU generation.
- Jan/21-Dec/23 **Expert on Trend Cycle Decomposition**, GOPA-Eurostat, role: PI.
- Jan/21-Dec/23 **Expert on Data Analysis Revisions**, GOPA-Eurostat, role: PI.
- Sep/21 **HEIRS: High-frequency Economic Indicators and Resilience of Society**, FISR-MIUR, role: PI.
- Sep/20 **SHE: Seasonal Hydrological Econometric forecasting for hydropower optimization**, Bando Research Südtirol/Alto Adige, role: Co-PI.
- Jun/20 **DNI: Data Normalization Intelligence**, funded by Corvallis, role: Co-PI.
- May/19 **PRIN: Econometric Analysis of High Dimensional Models with Network Structures in Macroeconomics and Finance**, MIUR, role: local unit PI.
- May/17 **OPTIMUM: dynamic optimization of programmable hydroelectric plants**, funded by European Commission, Province of Bozen-Bolzano, Alperia Energy, role: PI.
- Dec/16 **Econometrics models for the pricing of European electricity markets**, funded by Europe Energy, role: PI.