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Energy Finance Italia 10 - Programme

10th Workshop of Energy Finance Italia, Viterbo, February 10-12, 2025

Conference venue: Aula Magna of Rettorato of University of Tuscia, Via Santa Maria in Gradi 4, Viterbo

Monday 10 February 2025

9:00 - 9:30 Registration

9:30 - 10:00 Opening

- Stefano Ubertini (Rector of University of Tuscia)
- Tiziana Laureti (Director of Department of Economics, Engineering, Society, and Business Organization, University of Tuscia)
- Carlo Mari (Chair of Energy Finance Italia 10, University of Tuscia)

10:00 - 11:00 Morning session 1 (Chair: Roberto Baviera)

- Michele Azzone (Polytechnic University of Milan): *Climate physical Risk: A Firm Value Model Approach*. (Discussant: Nicola Bartolini)
- Nicola Bartolini (University of Bologna): *Water Shortage and Mitigation Solutions: a focus to new physical and financial hedging tools*. (Discussant: Michele Azzone)

11:00 - 11:30 Coffee break

11:30 - 13:00 Morning session 2 (Chair: Rosella Castellano)

- Katarzyna Chęć (Wrocław University of Science and Technology): *Extrapolating the long-term seasonal component of electricity prices for forecasting in the day-ahead market*. (Discussant: Rita D'Ecclesia)
- Rita D'Ecclesia (Sapienza University of Rome): *Not all glitters, but at least it is green*. (Discussant: Attilio Di Sabato)
- Attilio Di Sabato (University of Turin): *Compensation rules in the Italian energy communities: an experimental approach*. (Discussant: Katarzyna Chęć)



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13:00 - 14:30 Light lunch

14:30 - 16:00 Afternoon session 1 (Chair: Rita D'Ecclesia)

- Guglielmo D'Amico (University of Chieti-Pescara): *Quantifying the mismatching of energy community demand and wind power: a reliability approach*. (Discussant: Paolo Falbo)
- Paolo Falbo (University of Brescia): *Optimal Investment and Fair Sharing Rules of the Incentives for Renewable Energy Communities*. (Discussant: Barbara Guardabascio)
- Barbara Guardabascio (University of Perugia): *Exploring Globalization in the International Natural Gas Trade Market*. (Discussant: Guglielmo D'Amico)

16:00 - 16:30 Coffee break

16:30 - 18:00 Afternoon session 2 (Chair: Paolo Falbo)

- Tobias Kargus (Karlsruhe Institute of Technology): *Multi-Market Coupling Model: A Residual Demand Approach*. (Discussant: Federico Cini)
- Ruediger Kiesel (University of Duisburg-Essen): *A Probabilistic Approach of Assessing and Ranking Firm's Transition Efforts*. (Discussant: Tobias Kargus)
- Federico Cini (Sapienza University of Rome): *Joint analysis of Bitcoin returns and volatility: Integrating energy-related risks into pricing through GARCH Models and ML Techniques*. (Discussant: Ruediger Kiesel)

Tuesday 11 February 2025

9:30 - 11:00 Morning session 1 (Chair: Guglielmo D'Amico)

- Andrea Marchioni (University of Udine): *Assessing the economic profitability of renewable energy projects: the role of financing and payout policies*. (Discussant: Silvia Romagnoli)
- Michele Domenico Massaria (Polytechnic University of Milan): *The Additive Bachelier model with an application to the oil option market in the Covid period*. (Discussant: Marco Mastrogiovanni)
- Marco Mastrogiovanni (University of L'Aquila): *A model for forward prices in the electricity market with fractional dynamics*. (Discussant: Michele Domenico Massaria)



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11:00 - 11:30 Coffee break

11:30 - 13:00 Morning session 2 (Chair: Fulvio Fontini)

- Alessandro Mazzoccoli (Roma Tre University): *Quantifying Predictive Knowledge: Wavelet Energy α -Divergence Measure for Time Series Uncertainty Reduction*. (Discussant: Patrizio Morganti)
- Patrizio Morganti (University of Tuscia): *Navigating the Nexus: Renewable Energy Consumption and Financial Development in the EU Context*. (Discussant: Filippo Petroni)
- Filippo Petroni (University of Chieti-Pescara): *Variability indexes for wind power*. (Discussant: Alessandro Mazzoccoli)

13:00 - 14:30 Light lunch

14:30 - 16:00 Afternoon session (Chair: Cristian Pelizzari)

- Alessandra Ortolano (University of Tuscia): *The tail spillovers between greenium and the oil price*. (Discussant: Alessandra Ruffini)
- Alessandra Ruffini (University of Brescia): *Optimal Joint Investment and Management of Renewable Energy Communities Under Uncertainty*. (Discussant: Amia Santini)
- Amia Santini (University of Bologna): *Modeling commodity futures with realized volatility: does anything beat a GARCH(1,1)?* (Discussant: Alessandra Ortolano)

16:00 - 16:30 Coffee break

16:30 - 17:30 Assembly of Energy Finance Italia

20:30 Gala Dinner at Terme dei Papi

Shuttle Service: From 19:30 a free Shuttle Service connects the Conference Venue (Rettorato of University of Tuscia) to the Restaurant (Terme dei Papi). At the end of dinner, the free Shuttle Service brings back to the Conference Venue (Rettorato of University of Tuscia).

Wednesday 12 February 2025

9:30 - 11:00 Morning session 1 (Chair: Tiziano Vargiolu)

- Giorgio Bongermينو (University of Bologna): *Energizing Tomorrow: How Renewables Are Shaping the Future of Energy Amid Uncertainty*. (Discussant: Alessandro Sapio)



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- Alessandro Sapiro (Parthenope University of Naples): *EU electricity market actions during the gas crisis: implications for electricity price dynamics*. (Discussant: Beniamino Sartini)
- Beniamino Sartini (University of Bologna): *Solar Energy Risks: Stochastic Radiation Modeling and Optimal Hedging Strategies*. (Discussant: Giorgio Bongermano)

11:00 - 11:30 Coffee break

11:30 - 13:00 Morning session 2 (Chair: Alessandro Sapiro)

- Maren Schmeck (Bielefeld University): *From Calendar Time to Business Time: The Case of Commodity Markets*. (Discussant: Simone Serafini)
- Simone Serafini (University of Bologna): *Pricing Carbon Allowance Options on Futures: Insights from High-Frequency Data*. (Discussant: Nabangshu Sinha)
- Nabangshu Sinha (University of Camerino): *PQK Model: Forecasting Electricity Supply and Demand Curves using Disentangled Prices and Volumes*. (Discussant: Maren Schmeck)

13:00 - 14:30 Light lunch

14:30 - 16:00 Afternoon session 1 (Chair: Carlo Lucheroni)

- Kevyn Stefanelli (Sapienza University of Rome): *Spotlighting Energy Sector through Green Transition Attention*. (Discussant: Ilaria Stefani)
- Ilaria Stefani (University of Milano-Bicocca): *Analyzing the greenium term structure of twin government bonds*. (Discussant: Diana Tratta)
- Diana Tratta (University of Brescia): *Optimizing hydro-pumping plant management in the new storage*. (Discussant: Kevyn Stefanelli)

16:00 - 16:30 Coffee break

16:30 - 18:00 Afternoon session 2 (Chair: Carlo Mari)

- Tiziano Vargiolu (University of Padova): *Nash equilibrium in a singular stochastic game between two renewable power producers with price impact*. (Discussant: Lucianna Cananà)
- Salvatore Vergine (Polytechnic University of Marche): *Valuation of compound real options for wind-storage system investment in diverse energy communities*. (Discussant: Tiziano Vargiolu)
- Lucianna Cananà (University of Bari): *Detection of methane leaks via drone in the oil & gas sector: optimization of the flow estimation method*. (Discussant: Salvatore Vergine)