# INREC 2023 - Conference Program

**Day 1, September 05, 2023**

| Time | Stream: **Energy Forecasting** | Stream: **Energy Trading and Risk Management** | Stream: **Energy Systems & Policy** |
|---|---|---|---|
| 10:00 | Registration in R12 S00 H12 | | |
| 10:15 | Welcome & Introduction in Room R12 S00 H12 | | |
| 10:30 | **Keynote 1 in Room R12 S00 H12**<br>*Prof. Dr. Sonja Wogrin, TU Graz*<br>*Energy System Models on the path Towards Climate Neutrality: Optimization and Data Aggregation* | | |
| 11:30 | Lunch Break | | |
| | Session: **Price Forecasting I**<br>Room: **R11 T03 C20** | Session: **Gas and Oil Market Analysis**<br>Room: **R11 T03 C82** | Session: **Storage Investments**<br>Room: **R11 T03 C75** |
| 12:30 | *LASSO Principal Component Averaging - a fully automated approach for point forecast pooling*<br>*Bartosz Uniejewski, Wroclaw University of Science and Technology* | *Time Series Analysis of Gas Prices in the EU and Other Hubs*<br>*Carolina S. García-Martos, Universidad Politécnica de Madrid* | *Electricity storage valuation from an investor's perspective*<br>*Julius Beranek, Karlsruhe Institute of Technology* |
| 13:00 | *Comparison of Adaptive probabilistic forecasting methods on French electricity spot prices*<br>*Olivier Feron, EDF* | *Global Natural Gas Market Integration in the Face of Shocks: Evidence from the Dynamics of European, Asian, and US Gas Futures Prices*<br>*Markos Farag, University of Cologne* | *The Cannibalization of Electricity Storage*<br>*Roland Maximilian Happach, TU Dresden* |
| 13:30 | *Multivariate Simulation-based Forecasting for Intraday Power Markets: Modelling Cross-Product Price Effects*<br>*Simon Hirsch, Statkraft Trading GmbH* | *Speculation in Yuan Denominated Shanghai Oil Futures*<br>*Imtiaz Sifat, Radboud University* | *Bootstrap-based forecasts in battery charging strategies*<br>*Tomasz Weron, Wroclaw University of Science and Technology* |
| 14:00 | Coffee Break | | |
| | Session: **Market Curves Forecasting**<br>Room: **R11 T03 C20** | Session: **Energy System Transition**<br>Room: **R11 T03 C82** | Session: **Energy System Design**<br>Room: **R11 T03 C75** |
| 14:15 | *Electricity Market Supply and Demand Curves Forecasting using Autoencoders*<br>*Nabangshu Sinha, University of Camerino* | *The Microeconomic Problem with Renewable Energy*<br>*Ryan Williams, Université Paris-Dauphine / Enoda* | *Cost-Optimal Design and Operation of Integrated Energy Systems: Supporting corporate decision making for decarbonization*<br>*Dennis Schneider, University of Duisburg-Essen* |
| 14:45 | *Electricity Price Forecasting using Sale and Purchase Curves*<br>*Peru Muniain, University of the Basque Country* | *Transformation of Condition Indicators for a Cross-sectoral Assessment of Equipment in the Electricity and Gas Distribution Grid for an Enhanced Asset Management*<br>*Fabian Göbelsmann, University of Wuppertal* | *Optimal design of industrial energy systems balancing reliability, costs, and greenhouse gas emissions*<br>*Benedict Brosius, RWTH Aachen University* |
| 15:15 | *Electricity Market Supply and Demand Curves Forecasting based on ISplines and Functional Analysis*<br>*Carlo Lucheroni, University of Camerino* | *Archetype development of medium voltage cable components for the evaluation of medium cable networks*<br>*Felix Schubert, University of Wuppertal* | *Deep Reinforcement Learning for Microgrid Optimization*<br>*Salih Gunduz, Istanbul Technical University* |
| 17:00 | Social Event: Zeche Zollverein | | |
| 18:30 | Conference Dinner | | |

**Day 2, September 06, 2023**

| Time | Stream: **Energy Forecasting** | Stream: **Energy Trading and Risk Management** | Stream: **Energy Systems & Policy** |
|---|---|---|---|
| | Session: **Price Patterns and Bidding Strategies**<br>Room: **R11 T03 C20** | Session: **Future of Gas and Hydrogen**<br>Room: **R11 T03 C82** | Session: **Energy Policy under Uncertainty**<br>Room: **R11 T03 C75** |
| 09:15 | *Modelling bidding strategies of flexibilities under uncertain price forecasts*<br>*Felix Nitsch, German Aerospace Center (DLR)* | *Exploring the role of Europe in the global LNG market equilibrium until 2040*<br>*Sebastian Zwickl-Bernhard, Energy Economics Group (EEG) TU Wien* | *Accounting for uncertainties when designing policy instruments: The case of the EU ETS and actors' foresight.*<br>*Joanna Sitarz, Potsdam Institute for Climate Impact Research (PIK)* |
| 09:45 | *Econometric analysis of the zigzag pattern observed in intraday electricity prices in Germany*<br>*Christopher Jahns, University of Duisburg-Essen* | *The European green hydrogen sector under import uncertainty*<br>*Dana Kirchem, German Institute for Economic Research (DIW Berlin)* | *Uncertainties and interactions in various transition pathways of a decentralized energy system*<br>*Evelyn Sperber, German Aerospace Center (DLR)* |
| 10:00 | *Coffee Break* | | |
| 10:30 | **Keynote 2 in Room R12 S00 H12**<br>Dr. Stephan Riezler, STEAG<br>*Opportunities and Challenges of Energy Transition and Volatile Energy Markets for STEAG GmbH* | | |
| 11:30 | *Coffee Break* | | |
| | Session: **Load Forecasting**<br>Room: **R11 T03 C20** | Session: **Risk Management and Renewables I**<br>Room: **R11 T03 C82** | |
| 12:00 | *High-Resolution Peak Demand Estimation Using Generalized Additive Models and Deep Neural Networks*<br>*Jonathan Berrisch, University of Duisburg-Essen* | *Managing market risk for a small renewable energy generator using bootstrap-based forecasts*<br>*Weronika Nitka, Wroclaw University of Science and Technology* | |
| 12:30 | *Managing overconfidence in time series probabilistic forecasting with an application to electricity load*<br>*Pietro Manzoni, Politecnico di Milano* | *Designing sustainable low-risk assets based on renewable energy investments*<br>*Fabian Kächele, Karlsruhe Institute of Technology* | |
| 13:00 | Lunch Break | | |
| 14:00 | **Keynote 3 in Room R12 S00 H12**<br>Prof. Dr. George Kariniotakis, MINES ParisTech<br>*Advances in RES Forecasting and Challenges for the Future* | | |
| 15:00 | Coffee Break | | |
| | Session: **Price Forecasting II**<br>Room: **R11 T03 C20** | Session: **Risk Management and Renewables II**<br>Room: **R11 T03 C82** | Session: **Modeling Energy Demand**<br>Room: **R11 T03 C75** |
| 15:15 | *A general methodology for the simulation of OU-Lévy and Lévy-OU processes applied to option pricing*<br>*Roberto Baviera, Politecnico di Milano* | *Impact of external shocks on subsidy free onshore wind deployment in Germany*<br>*Johann Heinrich Caspar Schütt, Technische Universität Bergakademie Freiberg* | *Extracting Information from Energy Load Data*<br>*Jawana Gabrielski, TU Dortmund* |
| 15:45 | *Electricity price forecasting through conformalized quantile regression deep-ensembles*<br>*Alessandro Brusaferri, National Research Council, Italy* | *Climate finance: green bubble detection and propagation in the energy market.*<br>*Gian Luca Vriz, University of Padova* | *Energy Demand of Direct-Air-Capture for offsetting residual emissions with focus on the German cement industry*<br>*Richard Rudolf Weidemann, Competence Center für Erneuerbare Energien und EnergieEffizienz (CC4E)* |
| 16:15 | *Probabilistic forecasting with Factor Quantile Regression: Application to electricity trading*<br>*Katarzyna Maciejowska, Wroclaw University of Science and Technology* | *Mitigating Financial Risks in Renewable Portfolios: Diversification and Power Purchase Agreements*<br>*Emma Romei, ETH Zurich* | *Assessing the Impact of Solar Home Systems on Clean Energy Access: A Case Study*<br>*Ayse Demir, Roehampton University London* |
| 16:45 | End of Conference | | |