

# ONLINE WORKSHOP

## “SHORT-TERM RENEWABLE ENERGY FORECASTING”

### WHEN

Dec 10, 2020  
10:00 a.m. – 3:00 p.m. CET

With increasingly large shares of electricity generated from fluctuating solar photovoltaic (PV) and wind, forecasting is crucial to efficiently operate the energy systems including the electricity grid. The workshop presents state of the art methods used in short term PV and wind energy forecasting as well as the results of their application.

The workshop is designed both for providers as well as advanced users of forecasts in the PV and wind sector. New potential application of the forecasting models in areas besides energy could emerge. In this way, the workshop intensifies the interaction between abstract forecast research and a pragmatic forecasts application in everyday life.

### EXPECTED PARTICIPANTS

Leading energy research institutions from: energy economics and technology, electrical engineering.

Companies which use/produce generation forecasts: transmission and distribution system operators, electricity providers, forecasts companies, direct marketers of both wind and PV.

Interested parties, which could benefit from improved forecasts, e.g. from finance, meteorology, climate research, etc.



Brandenburg  
University of Technology  
Cottbus - Senftenberg

Supported by:



Federal Ministry  
for Economic Affairs  
and Energy

on the basis of a decision  
by the German Bundestag

### ORGANIZERS

Brandenburg University of Technology,  
Chair of Energy Economics,  
Prof. Dr. Felix Müsgens

### SPEAKERS

Prof. Dr. Oliver Grothe,  
*Department of Analytics and Statistics,  
Karlsruhe Institute of Technology*  
Prof. Dr. Gernot Müller,  
*Chair for Computational Statistics and  
Data Analysis,  
University of Augsburg*  
Dr. Sven F. Crone,  
*Lancaster University Management School,  
UK*  
Dominik Beinert,  
*Fraunhofer Institute for Energy Economics  
and Energy System Technology*  
Dr. Dragana Nikodinoska and Dr. Mathias  
Käso,  
*Brandenburg University of Technology*

### REGISTRATION AND COSTS

Register by sending an email to Dragana  
Nikodinoska:

([dragana.nikodinoska@b-tu.de](mailto:dragana.nikodinoska@b-tu.de)).

Participants who are already pre-registered  
can skip this step.

Costs: free of charge

Registration deadline is 30.11.2020.

Participation details and link to the online  
meeting will then be shared with all  
registered participants.

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## AGENDA

Timeslot	Speaker	Topic
<hr/> <b>BEST INDUSTRY PRACTICES (Moderated by Dr. Nikodinoska)</b> <hr/>		
10:00–10:10	Prof. Dr. Felix Müsgens	Welcome and Opening
10:10–10:40	Prof. Dr. Oliver Grothe	Developing Large Scale Renewable Energy Layouts for Precise Weather-to-Energy-Conversion Based Forecasts Across Europe
10:40–11:10	Dominik Beinert	Wind and Solar Power Forecasting Based on Deep Neural Networks and Transfer Learning
11:10–11:40	Dr. Dragana Nikodinoska	Short-term Wind and Solar Power Generation Forecasts using Elastic Net in Time-Varying Forecast Combinations
11:40–12:00	Discussion	
12:00–13:00	Lunch break	

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## METHODOLOGIES (Moderated by Dr. Käso)

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13:00–13:30	Prof. Dr. Gernot Müller	Stochastic Modeling of Intraday Photovoltaic Power Generation and Applications to Energy Finance
13:30–14:00	Dr. Sven F. Crone	K-Nearest Neighbours in Energy Forecasting – Balancing Accuracy and Transparency
14:00–14:30	Dr. Mathias Käso	About the Theory Of Trimmed Simple Average Forecast Combinations
14:30–14:50	Discussion	
14:50–15:00	Prof. Dr. Felix Müsgens	Closing remarks

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