Dr. ir. D. W. van der Meer

Energy meteorologist and data scientist with 8+ years of experience. Passionate about contributing to mitigating climate change through technological innovation in the energy sector.

CONTACT

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Dennis van der Meer
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Google Scholar publication list

SKILLS

Programming

Python
R
Matlab
Scala
Julia
LaTeX

Operating Systems

Linux
MacOS
Windows

Software & Tools

Visualisation
(e.g. ggplot, matplotlib, ...)
Data handling/analysis
(e.g. dplyr, numpy, scipy, ...)
Machine learning
(e.g. caret, scikit-learn, ...)
Optimization
(e.g. cvxpy, gams, ...)
Artificial intelligence
(e.g. tensorflow, ...)
Docker

Languages

Dutch
English
Swedish
French

CERTIFICATES

Geospatial Analytics and Big Data; Mathematical, Statistical and Computational Foundations for Data Scientists; Introduction and Fundamentals of Data Science.

WORK HISTORY

05/2023 - Ørsted, Copenhagen	Senior quantitative analyst
04/2021 - 03/2023 MINES Paris, Sophia Antipolis	Postdoctoral researcher
02/2021 - 03/2021 Uppsala University, Uppsala	Researcher
11/2019 - 03/2021 Greenlytics, Stockholm	External consultant
07/2016 - 01/2021 Uppsala University, Uppsala	PhD candidate

EDUCATION

2021 Uppsala University, Uppsala	Doctor of Philosophy
2016 Technical University, Delft	Master of Science
2013 Technical University, Delft	Bachelor of Science

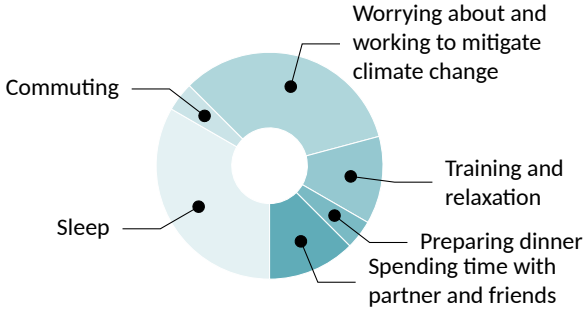
ACHIEVEMENTS, HONOURS AND AWARDS

- Helped reduce balancing costs by more than 10 million DKK through improved probabilistic forecasting.
- Helped PI receive funding by writing deliverable for a European Union Horizon 2020 project (No. 864337).
- Helped PI secure €410,000 funding for a project of the Swedish Energy Agency.
- Derived irradiance maps of Sweden from satellite imagery using state-of-the-art algorithms.
- Best Paper Award (IEEE Industrial Electronics Society, 2019).
- Finalist in Best Student Paper Award Competition (IEEE PVSC, 2018).
- Master thesis prize, 2nd place (QPark, 2017).

GENERAL SKILLS

Problem solving | Critical thinking | Active listening | Collaboration | Written communication | Public speaking | Adaptability | Organization

A DAY IN THE LIFE OF



LIST OF SELECTED MANUSCRIPTS

CRPS-based online learning for nonlinear probabilistic forecast combination

D. van der Meer, P. Pinson, S. Camal, G. Kariniotakis

2024 International Journal of Forecasting Link

Generalizing Renewable Energy Forecasting Using Automatic Feature Selection and Combination

D. van der Meer, S. Camal, G. Kariniotakis

2022 17th International Conference on Probabilistic Methods Applied to Power Systems (PMAPS) Link

Data-Enabled Reactive Power Control of Distributed Energy Resources via a Copula Estimation of Distribution Algorithm

D. van der Meer, H. Valizadeh Haghi, J. Kleissl, J. Widén

2022 17th International Conference on Probabilistic Methods Applied to Power Systems (PMAPS) Link

A review of solar forecasting, its dependence on atmospheric sciences and implications for grid integration: Towards carbon neutrality

D. Yang, W. Wanga, C.A. Gueymard, T. Hong, J. Kleissl, J. Huang, M. J.Perez, R. Perez, J. M. Bright, X. Xia, **D. van der Meer**, I. Marius Peters

2022 Renewable and Sustainable Energy Reviews, Vol. 161, id. 112348 Link

A benchmark for multivariate probabilistic solar irradiance forecasts

D. van der Meer

2021 Solar Energy, Vol. 225, pp. 286-287 Link

Post-processing in solar forecasting: Ten overarching thinking tools

D. Yang, **D. van der Meer**

2021 Renewable and Sustainable Energy Reviews, Vol. 140, id. 110735 Link

An alternative optimal strategy for stochastic model predictive control of a residential battery energy management system with solar photovoltaic

D. van der Meer, G. C. Wang, J. Munkhammar

2021 Applied Energy, Vol. 283, id. 116289 Link

Very short term load forecasting of residential electricity consumption using the Markov-chain mixture distribution (MCM) model

J. Munkhammar, **D. van der Meer**, J. Widén

2021 Applied Energy, Vol. 282, id. 116180 Link

Verification of deterministic solar forecasts

D. Yang, S. Alessandrini, J. Antonanzas, F. Antonanzas-Torres, V. Badescu, H. G. Beyer, R. Blaga, J. Boland, J. M. Bright, C. F. M. Coimbra, M. David, A. Frimane, C. A. Gueymard, T. Hong, M. J. Kay, S. Killinger, J. Kleissl, P. Lauret, E. Lorenz, **D. van der Meer**, M. Paulescu, R. Perez, O. Perpiñán-Lamigueiro, I. Marius Peters, G. Reikard, D. Renné, Y.-M. Saint-Drenan, Y. Shuai, R. Urraca, H. Verbois, F. Vignola, C. Voyant, J. Zhang

2020 Solar Energy, Vol. 210, pp. 20-37 Link

Clear-sky index space-time trajectories from probabilistic solar forecasts: Comparing promising copulas

D. van der Meer, D. Yang, J. Widén, J. Munkhammar

2020 Journal of Renewable and Sustainable Energy, Vol. 12, id. 026102 Link

Review on probabilistic forecasting of photovoltaic power production and electricity consumption

D. van der Meer, J. Widén, J. Munkhammar

2018 Renewable and Sustainable Energy Reviews, Vol. 81, pp. 1484-1512 Link

Energy Management System With PV Power Forecast to Optimally Charge EVs at the Workplace

D. van der Meer, G. R. Chandra Mouli, G. Morales-España, L. Ramirez Elizondo, P. Bauer

2018 IEEE Transactions on Industrial Informatics, Vol. 14, pp. 311-320 Link