Dr. ir. D. W. van der Meer

Energy meteorologist and data scientist with 7+ years of experience. Passionate about contributing to mitigating climate change through technological innovation in the energy sector.

CONTACT

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- in Dennis van der Meer
- ⓘ 0000-0002-9473-4536
- Google Scholar publication list

SKILLS

Programming
- R ●●●●●
- Python ●●●●○
- 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

📅 April 2021 - 📍 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

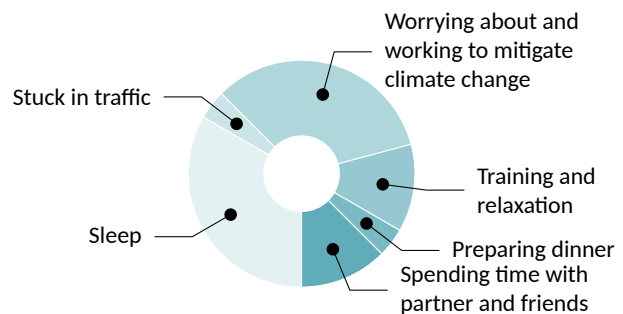| 📅 2021
 📍 Uppsala University, Uppsala | Doctor of Philosophy |
| 📅 2016
 📍 Technical University, Delft | Master of Science |
| 📅 2013
 📍 Technical University, Delft | Bachelor of Science |

ACHIEVEMENTS, HONOURS AND AWARDS

- 🏆 Helped 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

- Worrying about and working to mitigate climate change
- Stuck in traffic
- Training and relaxation
- Sleep
- Preparing dinner
- Spending time with partner and friends

LIST OF SELECTED PUBLICATIONS

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