Bjarke Tobias Olsen

Resource Assessment Modeling
Wind Energy
Technical University of Denmark
Roskilde, Denmark

Email: bjarketol@gmail.com
Web: bjarketol.github.io
Phone: +45 22987606

EDUCATION

M.S. Physics/Meteorology, Copenhagen University, 2013
Flow dependant mixing in hybrid Eulerian/Lagrangian methods for solving continuity equations in geophysical fluid dynamics problems

B.S. Meteorology, Copenhagen University, 2010

ACADEMIC APPOINTMENTS

2014– Technical University of Denmark
Ph.D. student, Wind Energy
Dissertation: *Mesoscale to microscale coupling for determining site conditions in complex terrain*

2014 Technical University of Denmark
Research Assistant
Global Wind Atlas, Downscaling Reanalysis datasets with the WAsP method

2013–14 Danish Meteorological Institute
Research Assistant
Verificiation of NWP nowcasting system for short-term heavy rain forecasting

RESEARCH INTERESTS

Mesoscale and microscale atmospheric modeling

Model coupling and downscaling

Data science: computational statistics, machine learning, big data, visualization, spatial analysis

Interactions between physical and machine learning models

PUBLICATIONS

Peer-Reviewed Journal Articles

2016 Olsen et al. "An intercomparison of mesoscale models at simple sites for wind energy applications" *Wind Energy Science*.

2015 Olsen et al. "On the performance of the new NWP nowcasting system at the Danish Meteorological Institute during a heavy rain period" *Meteorology and atmospheric physics*.

2014 Korsholm et al. "A new approach for assimilation of 2D radar precipitation in high-resolution NWP model" *Meteorological Applications*.

Manuscripts in Preparation

2018 Olsen et al. "One-way mesoscale to microscale model coupling via dynamical tendencies: application in simple terrain" Target: *Wind Energy Science*, Fall 2018.

2018 Olsen et al. "Mesoscale to microscale coupling via momentum and temperature tendencies in complex terrain" Target: *Wind Energy Science*, Winter 2018.

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