

NORCOWE 2016

14th – 16th September 2016



***Conference venue: Grand Hotel Terminus
Bergen, Norway***

14th September

8:30-9:30 Registration/coffee/tea

9:30-10:45 **Overview over NORCOWE**

Kristin Guldbrandsen Frøysa, CMR

The FME scheme

The FME scheme – from the Research Council of Norway’s perspective, Harald Rikheim

The FME scheme – from the host institution’s perspective, Arvid Nøttvedt, Christian Michelsen Research AS

The FME scheme – coping with a turbulent industry, Erik Stensrud Marstein, Solar United/IFE

10:45-11:45 **The impact of NORCOWE**

PhD student Line Båserud, UiB

Professor Geir Hovland, UiA

Professor Peter M Haugan, UiB

PhD student Ole-Erik Vestøl Endrerud, Shoreline and UiS

Scientist Jan Willem Wagenaar, ECN

Vice president Jostein Mælan, StormGeo

11:45-12:45 **Lunch**

12:45-16:30 **Summary and highlights from NORCOWE**

Introduction – Finn Gunnar Nielsen, UiB

Measurements – Joachim Reuder, UiB

Loads – Jasna Bogunovic Jakobsen, UiS

Norwegian Motion Lab – Geir Hovland, UiA

Maintenance – John Dalsgaard Sørensen, AAU

NORCOWE Reference Wind Farm – Angus Graham, Uni Research

NORCOWE from a user partner’s perspective – Henriette Undrum, Statoil

Spin-offs

GWIND - Arnfinn Nergaard, UiS

Decision support for installation of offshore wind turbines – Yngve Heggelund, CMR

16:45-18:00 **Posters**

18:30 Dinner, The University Aula in Bergen

15th September

- 8:30-8:45 Registration/coffee/tea
- 8:45-12:00 Parallel Sessions
Session A: Met-ocean measurements and numerical weather prediction
Session B: Wind-farm operations, maintenance, control and optimisation
- 12:00-13:00 **Lunch**
- 13:00-14:00 Parallel Sessions (continued)
- 14:20-14:50 ***NORCOWE Reference Wind Farm***
NORCOWE RWF – main results so far, Thomas Bak, Aalborg University
NORCOWE RWF – the international perspective, Angus Graham, Uni Research
- 14:50-16:00 ***The future of offshore wind and major research gaps***
Cecilie Kvamme, Institute of Marine Research
Jan Willem Wagenaar, ECN
Line Storelvmo Holmberg, Vestas
Huw Williams, Carbon Trust
Hiroshi Matsumoto, Innovation Norway
- 16:00 Posters/tapas
- 18:15-21:00 Social event: Visit to Edvard Grieg's home Troidhaugen



Session A: Met-ocean measurements and numerical weather prediction

The NORCOWE measurement dataset

Keynote: Measurements and simulations of wind turbine wakes in on-shore wind farms, Julie Lundquist, NREL

Lidar measurement highlights, Valerie Kumer, UiB

OBLEX-F1: Atmosphere, Joachim Reuder, UiB

OBLEX-F1: Ocean, Mostafa Bakhoday, UiB

Environmental monitoring at Havsul 1, Dominique Durand, Uni Research

Progress in measurement and modelling techniques

Keynote: State of the art in mesoscale modeling and validation for offshore and coastal wind resources: Results from the RUNE and NEWA projects, Andrea Hahmann, DTU

NORCOWE's contribution to improvements in measurement methods and measurement techniques, Martin Flügge, CMR

Downscaling of reanalysis and NWP data, Torge Lorenz, Uni Research

Site assessment for energy yields, Idar Barstad, Uni Research

A CFD based fast method for wind farm layout and energy calculations, Yngve Heggelund, CMR

CFD of wind wave interaction, Siri M Kalvig, UiS

Session B: Wind-farm operations, maintenance, control and optimisation

Keynote: Bill Leithead, Strathclyde University

Fatigue minimising power reference control of a de-rated wind farm, Tom Nørgaard Jensen, AAU

Cost-optimal risk-based planning of Operation & Maintenance, Mihai Florian, AAU

Simulating operation and maintenance with agent based models, Ole-Erik Vestøl Endrerud, UiS

Health assessment of pitch and yaw systems for offshore wind turbines, Surya Teja Kandukuri, UiA

Working the tide - operational experience from Sheringham Shoal Offshore Wind Farm, Andrea Eugster, Statoil

Integration of offshore wind in the grid – challenges and solutions, Zhe Chen, AAU

Slamming forces on the truss structure, modeling and wave tank tests, Jithin Jose, UiS

Turbulence and its impact on fatigue, Abhijit Chougule, UiA

Forecasting single-variable weather windows with very high degree of certainty, John Bjørnar Bremnes, MET

Market regimes and market imbalance costs for renewable energy, Trond Svanes Jensen, Aquilo

16th September

- 08:00 Departure Bergen
- 09:00 Ferry from Halhjem
- 10:00 Arrival Midtfjellet Vindpark
- 10:00-12:00 Guided tour Midtfjellet
- 12:15 Departure Sandvikvåg
- 12:15-12:55 Lunch at the ferry
- 12:55 Arrival Halhjem
- 14:00 Arrival Fjellstrand (via Hatvik-Venjanaset)
- 14:00-15:30 Guided tour at Fjellstrand Ship Yard
- 15:30 Departure Fjellstrand
- 16:15 Dinner at Hardingasete
- 19:30 Arrival Bergen (via Norheimsund/Steinsdalsfossen)

