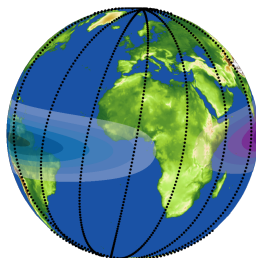


Workshop on
WIND PROFILES and MESOSCALE DATA ASSIMILATION
for Numerical Weather Prediction

University of Ljubljana
Faculty of mathematics and physics
Ljubljana 19-20 September 2016



P r o g r a m

Monday, 19 September

Chair: Nedjeljka Žagar (UL)

9:00 Opening and practical information (N. Žagar)

9:10 Welcome by the host (B. Golob)

Mesoscale data assimilation and the role of winds: where we stand

9:15 Nils Gustafsson (SMHI): Mesoscale data assimilation: 49 years of perspective

10:15 – 10:35 *Coffee break*

10:35 Ad Stoffelen (KNMI): Mesoscale wind data assimilation and global OSE results

11:05 Gert-Jan Marseille (KNMI): Challenges in mesoscale data assimilation

11:35 Jelena Bojarova (SMHI): Assumptions behind background error statistics and the evolution of uncertainty on mesoscale

12:05 – 13:40 *Lunch break*

Mesoscale observations: what needs to be initialized

13:40 Mark Žagar et al. (Vestas): Near-surface wind variability: impacts on wind energy applications

14:10 Andreas Doernbrack et al. (DLR): Atmospheric internal gravity waves - Observations versus numerical predictions by the ECMWF Integrated Forecast System

14:40 – 15:00 *Coffee break*

Impact of wind observations in NWP models: recent results

15:00 Siebren de Haan and Ad Stoffelen (KNMI): Mode-S analysis and assimilation at KNMI

15:30 Benedikt Strajnar (ARSO/UL): Introduction of Mode-S wind and temperature profiles into ALADIN model

16:00 – 16:20 *Coffee break*

16:20 Tijana Janjić Pfander et al. (LMU): Assimilation of the high resolution wind data with the ensemble Kalman filter

16:50 Michael Rennie (ECMWF): Results from experiments assimilating densely sampled aircraft wind data in the ECMWF model

17:20 Conclusion of Day 1

18:00 *Walk to the Ljubljana castle (optional)*

19:00 *Workshop dinner*

Tuesday, 20 September

Chair: Jelena Bojarova (SMHI)

ADM-Aeolus and Mesoscale NWP

9:15 Michael Rennie (ECMWF): Aeolus Level-2B wind products

10:00 Gert-Jan Marseille (KNMI): Aeolus error characteristics in heterogeneous atmospheric conditions

10:30 – 10:50 *Coffee break*

10:50 Nedjeljka Žagar (UL): Assimilation of line-of-sight winds and balance issues: from the tropics to the mid-latitude mesoscale

11:20 Matic Šavli (UL): Results from mesoscale OSSE with simulated ADM-Aeolus winds and EnKF

11:50 *Administrative matters*

12:15 – 13:40 *Lunch break*

Mesoscale dynamics and data assimilation

13:40 Wenming Lin, Ad Stoffelen et al. (KNMI): Improved mesoscale analyses with 2DVAR

14:10 Žiga Zaplotnik (UL): Dynamics of winds and aerosols in 4D-Var

14:40 Jure Cedilnik et al. (UL): The growth of ensemble spread in mesoscale NWP model due to LB perturbations

15:10 – 15:30 *Coffee break*

15:30 – 17:00 Discussion on recent developments and challenges in data assimilation for mesoscale NWP models in Europe

17:00 *Workshop closure*