



Specific Workshop on

# Short-Term Weather Forecasting for Probabilistic Wake-Vortex Prediction

Institut für Physik der Atmosphäre, DLR-Oberpfaffenhofen

10/11 May 2010

## Workshop Agenda

### Monday, 10 May 2010 (1st day)

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| <b>10:15</b> | <b>Coffee, informal get-together</b>  |
| <b>10:45</b> | <b>Welcome &amp; Introduction</b><br>Ulrich Schumann, Director of Institute of Atmospheric Physics<br>Frank Holzäpfel, Coordinator Area Technologies - WakeNet3-Europe, DLR                   |
| 11:00        | <b>Introduction into Wake-Vortex Aspects for Meteorologists</b><br>Thomas Gerz / DLR  |
| 11:40        | <b>Introduction into Meteorological Aspects for Wake-Vortex Modelers</b><br>George Craig / Ludwig-Maximilians Universität, München  |
| <b>12:20</b> | <b>Lunch</b>  |
| <b>13:20</b> | <b>Predictability and Uncertainty of Meteo Predictions I</b><br>Chair: George Craig / Ludwig-Maximilians Universität  |
| 13:20        | <b>Short-term Prediction of Wind and Temperature Profiles based on Profiler RADAR data for the use by a Wake Vortex Warning System at Frankfurt Airport</b><br>Daniel Sacher / MeteoSolutions |
| 14:00        | <b>Predictability of precipitation determined by convection-permitting ensemble modeling</b><br>Christian Keil / Ludwig-Maximilians Universität, München                                      |
| 14:40        | <b>Blending a probabilistic nowcasting method with a high resolution ensemble for convective precipitation forecasts</b><br>Kirstin Kober / DLR   |
| <b>15:20</b> | <b>Break</b>  |
| <b>15:40</b> | <b>Predictability and Uncertainty of Wake-Vortex Predictions I</b><br>Chair: Thomas Gerz / DLR  |
| 15:40        | <b>Investigation of the effect of wind uncertainty/fluctuation on wake vortex transport NGE/IGE</b><br>Gregoire WINCKELMANS / UCL/IMMC  |
| 16:20        | <b>Methods to establish probabilistic wake vortex models</b><br>Frank HOLZÄPFEL / DLR   |
| 17:00        | <b>Workshop wrap-up discussion</b>  |
| <b>17:30</b> | <b>End of Day 1</b>   |
| <b>19:30</b> | <b>Invited Dinner, Andechser Hof, Zum Landungssteg 1, Herrsching, +49-(0)8152-96810</b>   |

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## Short-Term Weather Forecasting for Probabilistic Wake-Vortex Prediction

### Workshop Agenda

**Tuesday, 11 May 2010 (2nd day)**

- 08:40** **Predictability and Uncertainty of Meteo Predictions II**  
Chair: Matthias Steiner / National Center for Atmospheric Research
- 08:40 **Towards an improved EDR output of the COSMO model for aviation purposes**  
Matthias Raschendorfer / DWD
- 09:20 **Characterization of forecast uncertainty by means of ensemble techniques**  
Matthias Steiner / NCAR
- 10:00 **Short Range Time-Lagged-Ensemble Forecasts of COSMO Airport**  
Klaus Dengler / DLR
- 10:40** **Break**
- 11:00** **Predictability and Uncertainty of Wake-Vortex Predictions II**  
Chair: Gregoire WINCKELMANS / UCL
- 11:00 **Probabilistic wake vortex predictions using time-based ensemble weather predictions**  
Frank HOLZÄPFEL / DLR
- 11:40 **Analysis of the Short-Term Variability of Crosswind Profiles**  
Matt Pruipe / NorthWest Research Associates, USA
- 12:20** **Lunch**
- 13:30 **Observability of wake vortex relevant meteorological quantities based on actual wake vortex behaviour**  
Shanna Schönhals / Technische Universität Braunschweig
- 14:10** **Open Discussion and Workshop Wrap-up**  
All  
Consolidated view on scientific questions, feasibility, priorities, ...
- 16:00** **End of Workshop – Safe Trip Home**