

# Workshop on data assimilation: initial conditions and beyond

**Programme** 

# Wednesday Agenda

Agenda time displays according to the selected time zone.

### The selected timezone is Europe/London

07:30 to 08:00	Registration		
	Session 1: Algorithms, Observations, Predictability Chair: TBD		
08:00 to 08:30	Data Assimilation: Initial conditions and beyond	Massimo Bonavita (ECMWF)	
08:30 to 09:00	On the role of the tropics in global predictability	Nedjeljka Zagar (University of Hamburg)	
09:00 to 09:30	Towards higher spatial and temporal resolution data assimilation in ECMWF IFS	Emiliano Orlandi Ziga Zaplotnik	
09:30 to 10:00	Coffee break		
10:00 to 10:30	Data assimilation developments at DWD	Christina Köpken-Watts (DWD)	
10:30 to 11:00	New error covariances & DA formulations at Météo-France with OOPS	Loïk Berre (Météo-France)	
11:00 to 11:30	HIRLAM data assimilation: current status and vision	Roger Randriamampianina (Norwegian Meteorological Institute)	
11:30 to 12:00	Developments in Data Assimilation and use of Observations at the Met Office	David Simonin (UK Met Office)	
12:00 to 13:00	Lunch break		
13:00 to 13:30	Exploiting synergies in Composition and NWP data assimilation	Antje Inness (ECMWF)	

13:30 to 14:00	Coupling Earth System Components in Data Assimilation: Advantages and Key Challenges	Phil Browne (ECMWF)
14:00 to 14:30	Coffee break	
14:30 to 15:00	Present and future observational landscape in Numerical Weather Prediction	Angela Benedetti (ECMWF)
15:00 to 15:30	Observation uncertainty and information content	Sarah Dance (University of Reading)
15:30 to 16:00	Predictability constraints on medium- range weather prediction	George Craig (Meteorological Institute, LMU Munich)
16:00 to 17:00	Poster session	

# Thursday Agenda

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	Session 2: Hybrid Data assimilation-Machine learning Chair: TBC	
08:00 to 08:30	Machine learning for data assimilation	Marc Bocquet (ENPC and ECMWF Fellow)
08:30 to 09:00	Development of an offline and online hybrid model for the Integrated Forecasting System	Alban Farchi (ECMWF) Marcin Chrust (ECMWF)
09:00 to 09:30	DWD's vision of a fully data-driven data assimilation approach	Jan Keller (Deutscher Wetterdienst)
09:30 to 10:00	Coffee break	
10:00 to 10:30	Hybrid data assimilation and machine learning	Alan Geer (ECMWF)
10:30 to 11:00	Machine Learning for Data Assimilation at Météo-France	Vincent Chabot (Météo France)
11:00 to 11:30	Harmonizing Knowledge: Machine Learning Meets Data Assimilation	Tijana Janjic (MIDS, KU Eichstaett-Ingolstadt)
11:30 to 12:00	Harnessing machine learning for high resolution data assimilation	Tomas Landelius (SMHI)
12:00 to 13:00	Lunch break	
13:00 to 13:30	Computational Optimizations and Emulation of EDA Perturbed Members and Statistics	Elias Holm (ECMWF) Wei Pan (ECMWF)

13:30 to 14:00	Merging DA and ML at various degree: examples from DA for Arctic Sea ice and for ocean biogeochemistry	Alberto Carrassi (University of Bologna) Charlotte Durand (CEREA - Ecole des Ponts) Chris Jones (University of North Carolina) Flavia Porro (University of Bologna)
14:00 to 14:30	Emerging role of machine learning in the data assimilation pipeline at NOAA	Sergey Frolov (NOAA PSL)
14:30 to 15:00	Coffee break	
15:00 to 15:30	RIKEN's activities to integrate DA and AI/ML	Takemasa Miyoshi (RIKEN)
15:30 to 16:00	Al-DOP: Learning a medium-range weather forecast directly from observations	Mihai Alexe (ECMWF)
16:00 to 17:00	Panel discussion	