



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

	Registration and welcome Gustav-Stresemann-Institut (GSI) Europäische Tagungs- und Bildungsstätte Bonn Langer Grabenweg 68 53175 Bonn-Bad Godesberg	
07:30 to 08:00	Registration	
08:00 to 08:10	Welcome Video recording	Florence Rabier (ECMWF)
	Session 1: Algorithms, Observations, Predictability Chairs: Elias Holm and Marcin Chrust	
08:10 to 08:40	Data Assimilation: Initial conditions and beyond Presentation slides Video recording	Massimo Bonavita (ECMWF)
08:40 to 09:10	On the role of the tropics in global predictability Presentation slides	Nedjeljka Zagar (University of Hamburg)
09:10 to 09:40	Towards higher spatial and temporal resolution data assimilation in ECMWF IFS Presentation slides Video recording	Emiliano Orlandi (ECMWF) Žiga Zaplotnik (European Centre for Medium-Range Weather Forecasts)
09:40 to 10:00	Coffee break	
10:00 to 10:30	Data assimilation developments at DWD Presentation slides Video recording	Roland Potthast (Deutscher Wetterdienst)

10:30 to 11:00	New error covariances & DA formulations at Météo-France with OOPS Presentation slides Video recording	Loïk Berre (Météo-France)
11:00 to 11:30	HIRLAM data assimilation: current status and vision Presentation slides Video recording	Roger Randriamampianina (Norwegian Meteorological Institute)
11:30 to 12:00	Developments in Data Assimilation and use of Observations at the Met Office Presentation slides Video recording	David Simonin (UK Met Office)
12:00 to 13:00	Lunch break	
	Session 1 continued: Algorithms, Observations, Predictability Chairs: Sebastien Massart and Alban Farchi	
13:00 to 13:30	Exploiting synergies in Composition and NWP data assimilation Presentation slides Video recording	Antje Inness (ECMWF)
13:30 to 14:00	Coupling Earth System Components in Data Assimilation: Advantages and Key Challenges Presentation slides Video recording	Philip Browne (ECMWF)
14:00 to 14:30	Group photo and coffee break	
14:30 to 15:00	Present and future observational landscape in Numerical Weather Prediction Presentation slides Video recording	Angela Benedetti
15:00 to 15:30	Observation uncertainty and information content Presentation slides Video recording	Sarah Dance (University of Reading)

15:30 to 16:00

**Predictability constraints on
medium-range weather prediction**

[Presentation slides](#)

[Video recording](#)

George Craig (Meteorological
Institute, LMU Munich)

16:30 to 18:30

Poster session

Thursday

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07:30 to 08:00	Arrival and registration Gustav-Stresemann-Institut (GSI) Europäische Tagungs- und Bildungsstätte Bonn Langer Grabenweg 68 53175 Bonn-Bad Godesberg	
	Session 2: Hybrid Data Assimilation - Machine Learning Chairs: Ziga Zaplotnik and Emiliano Orlandi	
08:00 to 08:30	Machine learning for data assimilation Presentation slides Video recording	Marc Bocquet (École Nationale des Ponts et Chaussées and ECMWF Fellow)
08:30 to 09:00	Development of an offline and online hybrid model for the Integrated Forecasting System Presentation slides Video recording	Alban Farchi (ECMWF) Marcin Chrust (ECMWF)
09:00 to 09:30	DWD's vision of a fully data-driven data assimilation approach Presentation slides Video recording	Jan Keller (Deutscher Wetterdienst)
09:30 to 10:00	Coffee break	
10:00 to 10:30	Hybrid data assimilation and machine learning Presentation slides Video recording	Alan Geer (ECMWF)
10:30 to 11:00	Machine Learning for Data Assimilation at Météo-France Presentation slides Video recording	Vincent Chabot (Meteo France)
11:00 to 11:30	Harmonizing Knowledge: Machine Learning Meets Data Assimilation Presentation slides Video recording	Tijana Janjic (Catholic University of Eichstätt-Ingolstadt)

11:30 to 12:00	Harnessing machine learning for high resolution data assimilation Presentation slides Video recording	Tomas Landelius (SMHI)
12:00 to 13:00	Lunch break	
	Session 2 continued: Hybrid Data Assimilation - Machine Learning Chairs: Marc Bocquet and Massimo Bonavita	
13:00 to 13:30	Computational Optimizations and Emulation of EDA Perturbed Members and Statistics Presentation slides Video recording	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 Presentation slides Video recording	Alberto Carrassi (University of Bologna)
14:00 to 14:30	Virtual presentation	
14:30 to 15:00	Coffee break	
15:00 to 15:30	RIKEN's activities to integrate DA and AI/ML Presentation slides Video recording	Takemasa Miyoshi (RIKEN)
15:30 to 16:00	AI-DOP: Learning a medium-range weather forecast directly from observations Presentation slides Video recording	Mihai Alexe (ECMWF)
16:00 to 17:00	Panel discussion	