



Annual Seminar 2023

Programme

Monday Agenda

The time displays according to the selected time zone.

The selected timezone is Europe/London

	Registration and welcome	
13:15 to 13:45	Registration and coffee Weather Room	
13:45 to 14:00	Welcome and opening remarks Video recording	Florence Rabier (ECMWF)
	Session 1: Setting the scene Chair: Bill Bell Co-Chair: Hans Hersbach	
14:00 to 14:15	Seminar walk through Video recording	Bill Bell (ECMWF) Hans Hersbach (ECMWF)
14:15 to 15:00	Introduction to reanalysis Presentation slides Video recording	Dick Dee (Planet-A consulting)
15:00 to 15:45	Coffee break	
15:45 to 16:30	Cutting-edge climate applications built upon atmospheric reanalysis: a user's perspective Presentation slides Video recording	Chiara Cagnazzo (ECMWF)
16:30 to 17:15	Towards Earth-system reanalysis Presentation slides Video recording	Patricia De Rosnay (ECMWF)
	Poster session and ice breaker	
17:15 to 17:40	Express poster presentations Video recording	
17:40 to 19:00	Poster session and ice breaker	

Tuesday

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	Session 2: Overview of reanalysis activities Chair: Tony McNally Co-Chair: Paul Poli	
09:15 to 10:00	Reanalysis activities at the NASA Global Modeling and Assimilation Office Presentation slides Video recording	Amal El Akkraoui (NASA)
10:00 to 10:45	ECMWF reanalysis activities: from research to operations Presentation slides Video recording	Hans Hersbach (ECMWF)
10:45 to 11:15	Group photo and coffee break	
11:15 to 12:00	Ocean and sea-ice reanalyses Presentation slides Video recording	Hao Zuo (ECMWF)
12:00 to 12:45	The Land Surface in Earth System Reanalysis Video recording	Rolf Reichle (NASA Goddard Space Flight Center)
12:45 to 14:00	Lunch	
	Session 2: Overview of reanalysis activities (cont.) Chair: Antje Inness Co-Chair: Patricia de Rosnay	
14:00 to 14:45	The value of global hydrological reanalysis Presentation slides Video recording	Christel Prudhomme (ECMWF)
14:45 to 15:30	Atmospheric composition reanalysis Presentation slides Video recording	Kazuyuki Miyazaki (NASA JPL)

15:30 to 16:00

Coffee break

Session 2: Overview of reanalysis activities (cont.)

Chair: Hans Hersbach

Co-Chair: Chiara Cagnazzo

16:00 to 16:45

**Overview of reanalysis activities:
Regional Reanalysis**

[Presentation slides](#)

[Video recording](#)

Harald Schyberg (Norwegian
Meteorological Institute)

16:45 to 17:30

Centennial reanalysis

[Presentation slides](#)

[Video recording](#)

Laura Slivinski (NOAA)

Wednesday

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	Session 3: Data assimilation methodology Chair: Patrick Laloyaux Co-Chair: Bill Bell	
09:15 to 10:00	Overview of data assimilation methods Presentation slides Video recording	Femke Vossepoel (Delft University of Technology)
10:00 to 10:45	Diversity in reanalysis products and opportunities for collaboration Presentation slides Video recording	Sergey Frolov (National Atmospheric and Oceanic Administration)
10:45 to 11:15	Coffee break	
	Session 4: Observations Chair: Bill Bell Co-Chair: Patricia de Rosnay	
11:15 to 12:00	To what extent are reanalyses actually constrained by observations? Presentation slides Video recording	Tony McNally (ECMWF)
12:00 to 12:45	Data rescue and reprocessing Presentation slides Video recording	Paul Poli (ECMWF)
12:45 to 14:00	Lunch	
	Session 5: Historical gridded forcing fields Chair: Hans Hersbach Co-Chair: Antje Inness	
14:00 to 14:45	Reconstruction of sea-surface temperature and sea-ice datasets Presentation slides Video recording	Nick Rayner (Met Office)

14:45 to 15:30	Towards consistent representation of the boundary forcing temporal variability in Earth System Reanalyses, reforecasts and climate integrations Presentation slides Video recording	Magdalena A. Balmaseda (ECMWF)
15:30 to 16:00	Coffee break	
	Session 6: Validation and inter-comparison of reanalyses Chair: Chiara Cagnazzo Co-Chair: Bill Bell	
16:00 to 16:45	Evaluation of processes and inter-annual variability in global atmospheric reanalyses Presentation slides Video recording	Michaela Hegglin (Forschungszentrum Jülich / University of Reading)
16:45 to 17:30	Evaluation of ocean reanalyses Presentation slides Video recording	Marie Drévillon (Mercator Ocean)
	Annual Seminar dinner	
17:30 to 18:30	Pre-dinner drinks	
18:30 to 20:30	Annual Seminar dinner	

Thursday Agenda

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	Session 7: Challenges and research Chair: Magdalena Alonso Balmaseda Co-Chair: Patrick Laloyaux	
09:15 to 10:00	Bias in Reanalysis Presentation slides Video recording	Bill Bell (ECMWF)
10:00 to 10:45	Global reanalysis precipitation datasets for hydrological modelling in data scarce regions: A case study of Kenya Presentation slides Video recording	Maureen Wanzala (Welthungerhilfe (WHH))
10:45 to 11:15	Coffee break	
11:15 to 12:00	Palaeoclimate reconstruction using data assimilation: the ModE-RA data set Presentation slides Video recording	Stefan Brönnimann (University of Bern)
12:00 to 12:45	Long coupled Earth System reanalysis with a focus on ocean and sea ice Presentation slides Video recording	François Counillon (NERSC/UoB)
12:45 to 14:00	Lunch	
	Session 7: Challenges and research (cont.) Chair: Bill Bell Co-Chair: Patrick Laloyaux	
14:00 to 14:45	Reanalysis: the bedrock of machine learning of the Earth system Presentation slides Video recording	Matthew Chantry (ECMWF)

14:45 to 15:30	Exploiting reanalyses in studies and services related to climatic trends Presentation slides Video recording	Adrian Simmons (ECMWF)
15:30 to 16:00	Coffee break	
	Session 7: Challenges and research (cont.) Chair: Patrick Laloyaux Co-Chair: Paul Poli	
16:00 to 16:45	Extremes in reanalysis and observational products Presentation slides Video recording	Markus Donat (Barcelona Supercomputing Center and ICREA)
16:45 to 17:30	On reanalysis production and quality assurance Presentation slides Video recording	Dinand Schepers (ECMWF)

Friday Agenda

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Session 8: Towards consistent Earth System Reanalysis Chair: Patricia de Rosnay Co-Chair: Paul Poli		
09:15 to 10:00	Improving land-atmosphere data assimilation coupling in future reanalyses Presentation slides Video recording	Clara Draper (NOAA ESRL PSL)
10:00 to 10:45	Integrated carbon cycle in reanalyses Presentation slides Video recording	Anna Agusti-Panareda (ECMWF)
10:45 to 11:15	Coffee break	
11:15 to 12:00	Development of coupled atmosphere-ocean data assimilation: Achievements and a perspective Presentation slides Video recording	Yosuke Fujii (JMA/MRI)
12:00 to 12:45	Exploiting interface observations in a coupled reanalysis system Presentation slides Video recording	Philip Browne (ECMWF)
12:45 to 13:15	Discussion and final remarks Video recording	Hans Hersbach (ECMWF) Paul Poli (ECMWF)