

Annual Seminar 2018

Earth system assimilation

10-13 September 2018



Monday 10 September

Introduction to earth system data assimilation

13:00-13:30	Registration and coffee	<i>Weather Room</i>
13:00-13:45	Welcome and opening	Andy Brown (Director of Research)
13:45-14:00	Introduction	Stephen English (ECMWF)
14:00-14:45	1 Overview of motivation and methods in earth system assimilation	Mark Buehner (EC)
15:00-15:30	<i>Coffee break</i>	
15:30-16:15	2 Review of evolving/current global observing systems for the earth system	John Eyre (Met Office)
16:30-17:15	3 Towards coupled assimilation in operational systems	Patricia de Rosnay (ECMWF)
17:30	<i>Drinks reception</i>	

Tuesday 11 September

Challenges in data assimilation

09:30-10:15	4 Handling non-linearity and non-gaussianity in variational systems	Massimo Bonavita (ECMWF)
10:30-11:00	<i>Coffee break</i>	
11:00-11:45	5 Ensemble and particle filter data assimilation	Roland Potthast (DWD)
12:00-12:45	6 Characterising and modelling background errors	Anthony Weaver (CERFACS)
13:00-14:00	<i>Lunch break</i>	
14:00-14:45	7 Model error and parameter estimation	Chiara Piccolo (Met Office)
15:00-15:30	<i>Coffee break</i>	
15:30-16:15	8 Issues specific to data sparse systems	Marc Bocquet (Ecole des Ponts Paris Tech)
16:30-17:15	9 Characterising and modelling observation errors	Sarah Dance (Reading University)

Wednesday 12 September

Coupling methods in numerical weather prediction

09:30-10:15	10 Land, ocean, sea ice, wave coupled model developments	Nils Wedi (ECMWF)
10:30-11:00	<i>Coffee break</i>	
11:00-11:45	11 Atmospheric composition coupled model developments and surface flux estimation	Saroja Polavarapu (EC)
12:00-12:45	12 Linear model and adjoint coupling	Marta Janiskova (ECMWF)
13:00-14:00	<i>Lunch break</i>	
14:00-14:45	13 Comparison of coupling strategies (outer loop and full covariance)	Sergey Frolov (NRL)
15:00-15:30	<i>Coffee break</i>	
15:30-16:15	14 Coupling through the observation operator (e.g. all sky, land surface...)	Alan Geer (ECMWF)
16:30-17:15	15 Coupled re-analysis	Dinand Schepers (ECMWF)
18:30	<i>Pre-dinner drinks</i>	
19:00	<i>Seminar dinner</i>	

Thursday 13 September

Status of and outlook for operational earth system assimilation

09:30-10:15	16 Atmospheric composition	Antje Inness (ECMWF)
10:15-11:00	17 Ocean	Phil Browne (ECMWF)
11:00-11:30	<i>Coffee break</i>	
11:30-12:15	18 Land and cryosphere	Clara Draper (NOAA)
12:15-13:00	19 Key challenges and future directions	Jean-François Mahfouf (Météo-France)
13:00-13:15	Closure	Andy Brown (ECMWF)
13:15-14:00	<i>Lunch break</i>	