TRAINING COURSE

Data Assimilation

27–31 March 2017

	Monday 27 March	Tuesday 28 March	Wednesday 29 March	Thursday 30 March	Friday 31 March
09:15-10:15	Introduction Operational and research activities at ECMWF now / in the future **Erland Källén, Sarah Keeley**	Assimilation Algorithms: (2) 3D-Var **Sebastien Massart**	Reanalysis methods **Patrick Laloyaux**	Bias correction methods **Niels Bormann**	Land Data Assimilation **Patricia de Rosnay**
10:15-10:35			***Coffee break***		
10:35-11:35	Overview of Assimilation Methods **Massimo Bonavita**	Assimilation Algorithms: (3) 4D-Var **Sebastien Massart**	Data Assimilation Diagnostics – Forecast Sensitivity **Cristina Lupu**	Quality Control of observations **Elias Holm**	Tangent Linear and Adjoints **Angela Benedetti**
11:35-11:45			***Comfort break***		
11:45-12:45	Conventional and actively sensed observations **Lars Isaksen**	Assimilation Algorithms: (4) Ensemble Kalman filters **Massimo Bonavita**	Parameterization and Data Assimilation **Philippe Lopez**	Model error in Data Assimilation **Patrick Laloyaux**	Practical Session: Tangent Linear and Adjoints **Angela Benedetti**
13:00-14:00			***Lunch break***		
14:00-15:00	Analysis of radiance observations **Tony McNally**	Assimilation Algorithms: (5) Hybrid Data Assimilation methods **Massimo Bonavita**	Practical Session: DA experiments with OOPS **Marcin Chrust** **Sebastien Massart** **Patrick Laloyaux**	Data Assimilation of Atmospheric Composition **Antje Inness**	Coupled Data Assimilation: opportunities and challenges **Phil Browne**
15:00-15:30			***Coffee break***		
15:30-16:30	Assimilation Algorithms: (1) Basic concepts **Sebastien Massart** ***16:30 Weather Room Tour*** ***17:00 Ice breaker***	Background error modelling in Data Assimilation **Massimo Bonavita**	Practical Session continued ***16:30 Weather Room Tour*** ***19:00 Self funded dinner in town***	Ocean Data Assimilation **Hao Zuo**	Final Discussion and Questions and Answers **M. Bonavita, E. Holm, L. Isaksen, S. Massart, P. Laloyaux**

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