TRAINING COURSE

Data Assimilation

11–15 March 2019

	Monday 11 March	Tuesday 12 March	Wednesday 13 March	Thursday 14 March	Friday 15 March
09:15-10:15	Introduction **Andy Brown, Sarah Keeley**	Assimilation Algorithms: (3) 4D-Var **Sebastien Massart**	Assimilation Algorithms: (5) Hybrid Data Assimilation methods **Massimo Bonavita**	Model error in Data Assimilation **Patrick Laloyaux**	Data Assimilation of Atmospheric Composition **Melanie Ades**
10:15-10:45			***Coffee break***		
10:45-11:45	Overview of Assimilation Methods **Massimo Bonavita**	Analysis of radiance observations **Tony McNally**	Data Assimilation Diagnostics – Forecast Sensitivity **Cristina Lupu**	Tangent Linear and Adjoints **Angela Benedetti**	Ocean Data Assimilation **Hao Zuo**
11:45-11:55			***Comfort break***		
11:55-12:55	Assimilation Algorithms: (1) Basic concepts **Sebastien Massart**	Assimilation Algorithms: (4) Ensemble Kalman filters **Massimo Bonavita**	Background error modelling in Data Assimilation **Elias Holm**	**Practical Session: Tangent Linear and Adjoints** **Angela Benedetti**	Reanalysis methods **Dinand Schepers**
13:00-14:15			***Lunch break***		
14:15-15:15	Conventional and actively sensed observations **Lars Isaksen**	Quality Control of observations **Elias Holm**	Bias correction methods **Niels Bormann**	Parameterization and Data Assimilation **Philippe Lopez**	Coupled Data Assimilation: opportunities and challenges **Phil Browne**
15:15-15:45			***Coffee break***		
15:45-16:45	Assimilation Algorithms: (2) 3D-Var **Sebastien Massart** *16:45 Tour of Weather room* *17:15 Ice breaker*	Practical Session until 17:15: DA experiments with OOPS continued **Marcin Chrust, Massimo Bonavita , Patrick Laloyaux**	Practical Session until 17:15: DA experiments with OOPS **Marcin Chrust, Massimo Bonavita, Patrick Laloyaux**	Land Data Assimilation **Patricia de Rosnay** *16:45 Tour of Computer Hall*	Final Discussion and Questions and Answers **M. Bonavita, E. Holm, L. Isaksen, P. Laloyaux**