Schedule for the Summer School on Data Assimilation and its applications in Oceanography, Hydrology, Risk & Safety and Reservoir Engineering

17 – 28 July 2017, SIBIU, ROMANIA

First week schedule

Hours	Monday	Tuesday	Wednesday	Thursday	Friday
9:00 – 9:30	R. Hanea				
9:00 - 10:30 (5 min. break)	A. Heemink (1)	P. Sakov (3)	A. Stordal (1)	J.Pelc (3)	H&B (1)
10:30 – 10:45	Coffee	Coffee	Coffee	Coffee	Coffee
10:45 - 11:45	A. Heemink (2)	P. Sakov (4)	A. Stordal (2)	J.Pelc (4)	H&B (2)
12:00 - 13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:15 – 14:15	P. Sakov (1)	A. Heemink (3)	J.Pelc (1)	A. Stordal (3)	H&B (3)
14:15 – 15:15	P. Sakov (2)	A. Heemink (4)	J.Pelc (2)	A. Stordal (4)	H&B (4)
15:15 – 15:30	Coffee	Coffee	Coffee	Coffee	Coffee
15:30 – 16:30	V&V (1)	V&V (3)	V&V (5)	P. Sakov (5)	H&B (5)
16:30 – 17:30	V&V (2)	V&V (4)	V&V (6)	A. Stordal (5)	H&B (6)
17:30 – 18:00	Student presentations	Student presentations	Student presentations	Student presentations	Student presentations

Second week schedule

Hours	Monday	Tuesday	Wednesday	Thursday	Friday
9:00 - 10:30 (5 min. break)	C&L (1)	A. Coman (3)	R&T(3)	K.Lemmens(4)	C&R (3)
10:30 – 10:45	Coffee	Coffee	Coffee	Coffee	Coffee
10:45 - 11:45	C&L (2)	A. Coman (4)	R&T(4)	Ben Ale (3)	C&R(4)
12:00 - 13:00	Lunch	Lunch	Lunch	Lunch	End
13:15 – 14:15	C&L (3)	K.Lemmens(1)	K.Lemmens(3)	Joao Encarnacao (2)	
14:15 – 15:15	C&L (4)	K.Lemmens(2)	Ben Ale (1)	Joao Encarnacao (3)	
15:15 – 15:30	Coffee	Coffee	Coffee	Coffee	
15:30 – 16:30	A. Coman (1)	R&T (1)	Ben Ale (2)	C&R (1)	
16:30 – 17:30	A. Coman (2)	R&T (2)	Joao Encarnacao (1)	C&R (2)	

1st week

Prof. Dr. Arnold Heemink (TU Delft, The Netherlands) – An introduction in Inverse Modelling and Data Assimilation – Basic notions

Dr. Pavel Sakov (Meteorological Bureau Melbourne, Australia) – Ensemble Kalman Filter – From basics to advanced technologies and improvements

Dr. Joanna Pelc – Variational methods for Data assimilation (3D, 4D VAR, hybrids)

Dr. Andreas Stordal (IRIS, Norway) – Particle filter and the hybrid filter – Adaptive Gaussian Mixture – basics to advance techniques

Prof. Dr. Martin Verlaan (TU Delft and Deltares, The Netherlands) & Nils van Velzen (Vortech, The Netherlands) – The Open DA paradigm - theory and the toolbox (V&V)

Dr. Anca Hanea and Prof. Dr. Mark Burgman (CEBRA, Melbourne, Australia) – Risk quantification, risk management, Expert Judgment and Safety issues (H&B)

2nd week

Dr. Alberto Carrassi and Dr. Laurent Bertino (NANSEN center) – Ocean and Climate applications (C&L)

Kees Lemmens (TU Delft, The Netherlands) – Scientific Programming using C and Python; Parallel Programming using MPI; and GPU Programming using Cuda.

Dr. Adriana Coman (LISA, Paris) – Atmospheric Data Assimilation – Air pollution

Dr. Chitu Alin (TNO, The Netherlands) – Ensemble based Robust Optimization and its flavors (theory and applications)

Prof. Dr. Remus Hanea (UiS and Statoil, Norway) and Torbjørn Ek (Statoil, Norway) – Ensemble based Assisted History Matching in Modern Reservoir Engineering - Introduction and in-depth approaches

Joao Encarnacao (UT Austin) – Satellite Gravimetric Data

Prof. Dr. Ben Ale (Benale Risk Management Advice) – Risk and Safety Issues