Schedule for the Summer school Program
22 July – 2 August 2019

1) 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)	G.Evensen (3)	P.J van Leeuwen (1)	A.Carrassi (1)	H&S(1)
10:30 – 10:45	Coffee	Coffee	Coffee	Coffee	Coffee
10:45 - 11:45	A. Heemink (2)	G.Evensen (4)	P.J van Leeuwen (2)	A.Carrassi (2)	A. Carrassi (3)
12:00 - 13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:15 – 14:15	G.Evensen (1)	A. Heemink (3)	G. Evensen (5)	P.J van Leeuwen (4)	A. Carrassi (4)
14:15 – 15:15	G.Evensen (2)	A. Heemink (4)	P.J van Leeuwen (3)	P.J van Leeuwen (5)	H&S(2)
15:15 – 15:30	Coffee	Coffee	Coffee	Coffee	Coffee
15:30 – 16:30	V&V (1)	V&V (3)	V&V (5)	P. Raanes (2)	P. Raanes (4)
16:30 – 17:30	V&V (2)	V&V (4)	P. Raanes (1)	P. Raanes (3)	P. Raanes (5)
17:30 – 18:00	Student presentations	Student presentations	Student presentations	Student presentations	Student presentations

2) Second week schedule

Hours	Monday	Tuesday	Wednesday	Thursday	Friday
9:00 - 10:30 (5 min. break)	K. Lemmens (1)	C&B (3)	R. Bratvold (1)	M. Ravasi (1)	Ivan Garcia (2)
10:30 – 10:45	Coffee	Coffee	Coffee	Coffee	F. Vossepoel(2)
10:45 - 11:45	K. Lemmens (2)	C&B (4)	R. Bratvold (2)	M. Ravasi (2)	F. Vossepoel(3)
12:00 - 13:00	Lunch	Lunch	Lunch	Lunch	
13:15 – 14:15	C&B(1)	H&B(1)	K. Lemmens (3)	R. Bratvold (3)	
14:15 – 15:15	C&B (2)	H&B(2)	K. Lemmens (4)	R. Bratvold (4)	
15:15 – 15:30	Coffee	Coffee	Coffee	Coffee	
15:30 – 16:30	H&S (3)	H&B(3)	H&B(5)	M. Ravasi (3)	
16:30 – 17:30	F. Vossepoel(1)	H&B(4)	H&B (6)	Ivan Garcia (1)	

1st week

Arnold Heemink (TU Delft) – An introduction in Inverse Modelling and Data Assimilation – Basic notions

Geir Evensen (NORCE) – Ensemble Kalman Filter – From basics to advanced technologies and improvements

Peter Jan van Leeuwen – Particle filter and its variants

Alberto Carrassi (NERSC) – Dynamical systems at glance - data assimilation for chaotic systems

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

Patrick Raanes (NORCE) – A python framework for data assimilation and inverse modelling

Remus Hanea (UiS and Equinor) and Andreas Stordal (NORCE) – Ensemble based Assisted History Matching in Modern Reservoir Engineering - Introduction and in-depth approaches (H&S)

2nd week

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

Laurent Bertino (NERSC) and Francois Counillon (NERSC) – Oceanography and Environmental Applications (C&B)

Remus Hanea (UiS and Equinor) and Andreas Stordal (NORCE) – Ensemble based Assisted History Matching in Modern Reservoir Engineering - Introduction and in-depth approaches (H&S)

Reidar Bratvold (UiS) – Value of Information

Matteo Ravasi (Equinor) – Seismic inverse modelling in a nutshell

Anca Hanea (CEBRA) and Mark Burgman (Imperial College) – Structured expert judgement for decision making under uncertainty (H&B)

Ivan Garcia (Booking.com) – Big data

Femke Vossepoel (TU Delft) - Geomechanical applications of data assimilation