

Program:

Program EnKF Workshop 2013

Monday 27/05/2013:

10:00-10:30: Coffee & registration

10:30-10:45: Welcome, Randi Valestrand (IRIS)

10:45-11:30: Eugenia Kalnay (invited)
(University of Maryland): *"Recent Advances in Data Assimilation with Ensemble Kalman Filter"*

11:30-12:00: **Jon Sætrom** (Statoil ASA): *"Localisation of state variables with global support*

using sparse regression techniques."

12:00-12:30: **Marc Bocquet** (ENPC and CERE) and Pavel Sakov (BOM):
"The iterative ensemble Kalman smoother"

12:30-13:30: Lunch

13:30-14:15: Remus Hanea (invited); *"To be or not to be Smoother"*

14:15-14:45: **Christian Lantuejoul** (MinesParisTech): *"Stochastic facies models for reservoir data assimilation"*

14:45-15:15: **Alina Astrakova** (CIPR) and Dean Oliver (CIPR): *“Updating realistic 3D geological models using the truncated plurigaussian model with an iterative ensemble smoother”*

15:15-15:45: Break

15:45-16:30: **Pavel Sakov (invited)** (BOM): *“Ensemble redrawing in strongly nonlinear systems”*

16:30-17:00: **Patrick Raanes** (NERSC/Oxford) and Laurent Bertino (NERSC): *“(Another) Data Assimilation Test Environment (DATE)”*

17:00-17:30: **Andreas. S. Stordal** (IRIS) and Slawomir P. Sklarz (TU Delft): *“Gaussian mutation for optimization and efficient importance sampling”*

18:30 Dinner

Tuesday 28/05/2013:

08:30-09:15: **Henrik Madsen (invited)** (DHI Group): *“Towards a probabilistic hydrological forecasting and data assimilation system”*

09:15-09:45: **Ibrahim Hoteit (KAUST)** and **Dinh-Tuan Pham (CNRS)**: *“Mitigating Observational Error Undersampling in the Stochastic EnKF”*

09:45-10:15: **Morten Borup** (DTU Environment and Krüger A/S), **M. Grum** (Krüger A/S), **P.S. Mikkelsen** (DTU Environment): *“Ensemble based updating of distributed, physically based, urban drainage models”*

10:15-10:45: Break

10:45-11:15: **Anahita Abadpour** (Total), P. Bergey (Total) and R. Piasecki (Total): *“History match with ensemble based methods: Use of Distance to boundary parameterization to address facies uncertainty and 4D seismic observation”*

11.15-12.00: **Dean Oliver (Uni CIPR): “Conditional Simulation Using Optimization: Relationship to Optimal Transport”**

12:00-12:30: **Yanhui Zhang** (Uni CIPR), Dean S. Oliver (Uni CIPR), Yan Chen (IRIS) and Hans J. Skaug (UoB): *“Data Assimilation Using the Iterative Ensemble Smoother*

for 2-D Categorical Models”

12:30-13:30: Lunch

13:30-18:00: **Sea eagle safari**

Departure to Nordsjøfartsmuseet by bus

The trip starts with a 15-20 minute walk across heaths and rocky terrain before boarding the boat

19:00 Dinner

Wednesday 29/05/2013:

08:30-09:15: Geir Evensen (invited) (Statoil):
“*Fast Model Update: A workflow for big-loop
model updating*”

09:15-09:45: Laura Dovera (Eni) and Stefano
Raniolo (Eni): “*Polymer Flooding Optimization
Using Ensemble Optimization*”

09:45-10:15: Bogdan Sebach (TU Delft), Re-
mus Hanea (Statoil) and Arnold Heemink (TNO):
“*Adaptive plurigaussian truncation scheme for
geological uncertainty quantification using the
EnKF*”

10:15-10:45: Break

10:45-11:15: **Kristian Fossum** (Uni CIPR) and Trond Mannseth (Uni
CIPR): “*Aspects of sequential and simultaneous assimilation*”

11:15-11:45: **Xiaodong Luo** (IRIS): “*Ensemble Kalman filtering with
residual nudging: some
recent results*”

11:45-12:15: **Martha Lien** (Uni CIPR) and Trond Mannseth (Uni CIPR):
“*Application of a reduced, composite parameter representation in combination
with the ensemble
Kalman Filter for facies identification.*”

12:15-13:15: Lunch

13:15-13:45: **Hector Klie** (CoPh), Brian Ludolph (CoPh), Randi Valestrand
(IRIS) and Geir Naevdal (IRIS): “*Estimating Parameters on Highly Faulted
Systems via AGM and PSO: A Comparison Study*”

13:45-14:15: **Theophile Gentilhomme** (University of Lorraine/Hampson-
Russell – CGG), Dean Oliver (Uni CIPR), Trond Mannseth (Uni CIPR), Rémi
Moyen (Hampson-Russell – CGG), Guillaume Caumon (University of Lorraine)
and Philippe Doyen (Hampson-Russell – CGG): “*Adaptive multi-scale ensemble-
based history matching of highly detailed prior models using wavelets*”

14:15-14:45: Break

14:45-15:15: **Ahmed H. Elsheikh** (ICES - The University of Texas, Austin),
Ibrahim Hoteit (KAUST), Mary F. Wheeler (ICES - The University of Texas,

Austin): “*Nested Sampling Particle Filter for Nonlinear Data Assimilation*”

15:15-15:45: **Oliver Pajonk** (TU Braunschweig): “*Stochastic methods in the context of hydrocarbon reservoir history matching*”

15:45: Concluding remarks

Speaker’s name written in **Boldface**