Program EnKF Workshop 2014

Monday 23/06/2014:

09:30-10:00:	**Coffe & registration**
10:00-10:15:	Welcome, Randi Valestrand (IRIS)
10:15-10:30:	**Laurent Bertino** (NERSC); *"State estimation"*
10:30-10:45:	**Dean Oliver** (Uni Research CIPR); *"Parameter estimation"*
10:45-11:30:	**Al Reynolds** (University of Tulsa)**;** *"My decade-long journal through the field of ensemble-based data assimilation"*
11:30-12:00	Lewis Mitchell (University of Vermont) and **Alberto Carrassi** (IC3/NERSC), *"Treating model error due to unresolved scales within ensemble Kalman filtering"*
12:00-13:00:	**Lunch**
13:00-13:45:	**Sebastian Reich** (Institut für Mathematik, Universität Potsdam*); "Linear ensemble transform filters: a unified perspective on ensemble Kalman and particle filters"*
13:45-14:15:	**Bogdan Sebacher** (TNO), Andreas Stordal (IRIS) and Remus Hanea (Statoil), *"Complex geology estimation using the iterative adaptive Gaussian mixture (IAGM)"*
14:15-14:45:	**Haibin Chang** and Dongxiao Zhang (Peking University, Beijing); *"Combining KLE based global parameterization and IEnKF for history matching of statistically anisotropic fields"*
14:45-15:15:	**Break**
15:15-15:45:	**Matei Tene,** (Dep. of Petroleum Eng., TU Delft), Christian Maris (Dep. of Applied Math., TU Delft), Alin Chitu *(*Dep. of Petroleum Geosciences, TNO*)*, Arnold Heemink *(*Dep. of Applied Math., TU Delft*)*; *"Ensemble-Based History Matching for Channelized Petroleum Reservoirs"*
15:45-16:15:	**Torbjørn Ek** (Statoil); *"Facies updating in a big-loop conditioning process"*
16:15-18:00:	Poster session
19:00	**Dinner**

Tuesday 24/06/2014:

08:30-09:15:	**Marco Iglesias** (Nottingham University); *"Iterative regularization for ensemble data assimilation"*
09:15-09:45:	**Marc Bocquet** (Université Paris-Est, CEREA joint laboratory Ecole des Ponts ParisTech and EdF R&D and INRIA, Paris Rocquencourt research center), Pavel Sakov (Bureau of Meteorology, Melbourne). "*Parameter estimation with the iterative ensemble Kalman smoother and application to a coupled meteorological/tracer low-order model.*"
09:45-10:15:	**Counillon Francois**, Bethke Ingo, Noel Keelyside, Mats Bentsen, Laurent Bertino, Yiguo Wang (NERSC); *"Using the EnKF for seasonal-to-decadal climate prediction"*
10:15-10:45:	**Break**
10:45-11:30:	**Emmanuel Cosme** (Universitè de Grenoble); *"A non-Gaussian ensemble analysis scheme based on rank histograms"*
11.30-12.00:	**William A. Lahoz,** P. Schneider (NILU); *"Toward Assimilation of Crowdsourcing Data using the EnKF"*
12:00-12:30:	**Zhekun Huang**, Zhen Peng, Hongnian Liu,(School of Atmospheric Sciences, Nanjing University), Meigen Zhang, Xiaoguang Ma (State key Laboratory of Atmospheric Boundary Layer Physics and Atmospheric Chemistry, Inst. of Atmospheric Physics, Chinese Academy of Sciences, Beijing), Shu-Chih Yang (Dep. of Atmospheric Sciences, National Central Univ., Taiwan), Sang-Deok Lee, Seung-Yeon Kim (National Inst. of Environmental Research, Republic of Korea), *"Development of CMAQ for East Asia CO2 data assimilation under an EnKF framework: Methodology and first results"*
12:30-13:30:	**Lunch**
13:30-19:00:	Time off / Activities on your own; Hiking, boat trips, swimming, spa…...
19:00	**Dinner**

Wednesday 25/06/2014:

09:15-09:45: **Tudor Popa** (TU Delft), R.G. Hanea (Statoil), M.O. Iwajomo (Statoil) & M. Verlaan (TU Delft/Deltares), Model Fast Update (FMU): *"Implementation for the Norne Field"*

09:45-10:15: **Bob Shuttleworth** (ExxonMobil Upstream Research Company), Tao Yang (University of Illinois, Urbana-Champaign), Chinedu Agbalaka, Adedayo Oyerinde, Dave Stern (ExxonMobil Upstream Research Company); *"History Matching Experiences with Ensemble Methods"*

10:15-10:45:   **Break**

10:45-11:15: **Martin Verlaan** and Sofia Caires (TU Delft and Deltares); *"Ensemble-based data-assimilation for the SWAN spectral wave Model"*

11:15-11:45: **Eng Tseng Lau** (National Physical Laboratory), Q. Yang, G.A. Taylor (Brunel University) A.B. Forbes, P. Wright and V.N. Livina (National Physical Laboratory*)*; *"Ensemble-Based Close-Loop Optimisation in Electrical Smart Grids"*

11:45-12:15: **Théophile Gentilhomme**, Dean Oliver, Trond Mannseth (Uni Research CIPR) and Rémi Moyen; *"Sequential Inversion of seismic and production data based on multi-scale history-matching"*

12:15-13:15:   **Lunch**

13:15-14:00:   **Remus Hanea** (Statoil) *"Reservoir management and production forecast under geological uncertainties using ensemble methods"*

14:00-14:30: **Andreas S. Stordal** (IRIS) and Hans Karlsen (UiB); *"Asymptotic properties of a broad class of mixture filters"*

14:30-15:00:   **Break**

15:00-15:30: **Kristian Fossum**, Trond Mannseth (Uni Research CIPR); *"Evaluation of ordered sequential assimilation for improved EnKF sampling"*

15:30-16:00: **Trond Mannseth** (Uni Research CIPR); *"Relation between five data assimilation methods for a simplistic weakly non-linear problem"*

16:00-16:05:   **Concluding remarks**

Speaker's name written in **Boldface**

Invited speaker

Posters:

1) **Jørn Rasmussen (**Univ. of Copenhagen), H. Madsen (Univ. of Copenhagen and DHI, Hørsholm,), K.H. Jensen (Univ. of Copenhagen) J.C. Refsgaard (Geological Survey of Denmark and Greenland (GEUS)); "*Assimilation of hydrological head and stream discharge observations in an integrated hydrological model for joint state updating and parameter estimation"*

2) **Donghua Zhang** (Dep. of Geosciences and Natural Resource Mngmt., Univ. of Copenhagen), Madsen Henrik, Marc E. Ridler, (DHI) and Jens Christian (Geological Survey of Denmark and Greenland); "*Impact of model uncertainty description on hydrological data assimilation via ensemble Kalman filter"*

3) Paul Egberts, Olwijn Leeuwenburgh, **Alin Chitu**, Frank Wilschut, Lilya Ghazaryan and Dries Hegen (Department of Petroleum Geosciences, TNO); "*Lifecycle optimisation with ensemble based gradients Tool development and applications"*

4) **Xiaodong Luo** (IRIS); "On an alternative implementation of the iterative ensemble smoother and its application to a reservoir facies estimation problem"

5) **William A. Lahoz**, T.M. Svendby, A. Griesfeller (NILU), R.A.M. de Jeu (VU-Amsterdam), W. Dorigo (TU-Wien*); "Assimilation of ASCAT, AMSR-E and SMOS soil moisture products over Europe: an assessment of the relative impact of each satellite dataset"*

6) Pavel Sakov, **Laurent Bertino**, Francois Counillon. (NERSC); *"Results from the TOPAZ4 20-years reanalysis"*

7) **Remus Hanea** (Statoil); *"Well planning optimization under geological uncertainties using ensemble methods"*

8) Kurt Petvipusit (Imperial College Of London), **Mario Trani,** Pierre Bergey (Total UK); *"Does the reduction in structural uncertainty with EnKF improve predictability?"*