Program EnKF Workshop 2015

Monday 08/06/2015:

08:00-13:25:	**Boat from Bergen - Flåm**
13:30-14:00:	Check in / registration
14:00-15:15:	Welcome by Randi Valestrand and lunch
15:15-16:00:	**Christopher K. Jones** (Mathematics Department University of North Carolina (UNC) at Chapell Hill, USA): *"A Hybrid Approach to Parameter Estimation"*
16:00-16:30:	**Dean Oliver** (UNI Research CIPR); "Ensemble based data assimilation for truncated gaussian models with non-monotonic data relationships"
16:30-16:45:	**Break**
16:45-17:15:	**Kristian Fossum** (UNI Research CIPR); *"Coarse-scale modelling for improved covariance estimation"*
18:00-19:30:	Poster session
20:00	**Dinner**

Tuesday 09/06/2015:

08:30-09:15:	**Jeffrey Anderson** (Computational and Information Systems Laboratory, Data Assimilation Research Section, UCAR, Boulder, USA); *"Automated Design of Localization for Ensemble Kalman Filters"*
09:15-09:45:	**Andreas Stordal** (IRIS) and Geir Nævdal; *"Generalized Randomized Maximum Likelihood"*
09:45-10:15:	**Nawinda Chutsagulprom**, Sebastian Reich (University of Potsdam, Germany); *"A Hybrid EnKF-ETPF Data Assimilation Scheme"*
10:15-10:45:	**Break**
10:45-11:30:	**Dick Dee** (Reanalysis Section, European Centre for Medium Range Weather Forecasts (ECMWF);*"Coupled data assimilation for climate reanalysis"*
11.30-12.00:	**Alberto Carrassi** (NERSC), Marc Bocquet (CEREA joint laboratory Ecole des Ponts ParisTech and EdF R&D, Université Paris-Est, France) and Alexis Hannart (IFAECI, CNRS/CONICET/UBA, Buenos Aires, Argentina); *"Data assimilation for computing model evidence: The problem of detection and attribution of climate-related events"*
12:00-12:30:	**Marc-Etienne Ridler**, Henrik Madsen (DHI, Hørsholm, Denmark), Simon Stisen (Geological Survey of Denmark and Greenland, Copenhagen), Simone Bircher (Centre d'Etudes Spatiales de la Biosphère, Toulouse), and Rasmus Fensholt (Dep. of Geosciences and Natural Resource Mngmt., University of Copenhagen; *"Satellite soil moisture assimilation in a hydrological model using a bias-aware local transform Kalman filter"*
12:30-13:30:	**Lunch**
13:30-14:00:	**Alexandre Emerick** (Petrobras); *"Assimilation of Production and Seismic Data Using ES-MDA"*
14:00-14:30:	**Yuqing Chang, Andreas S. Stordal, Randi Valestrand** (IRIS); *"Preserving Geological Realism for Channelized Facies Estimation on the Brugge Field"*
14:30-14:45	**Break**
14:45-15:30	**Ibrahim Hoteit** (Physical Sciences and Engineering Division (PSE), King Abdullah University of Science and Technology (KAUST), Saudi Arabia; *"Gaussian Mixture Filtering High Dimensional Systems"*
15:30-16:00:	**Patrick Raanes**, Alberto Carrassi, Laurent Bertino (NERSC*); "Extending the square root method to account for model noise in the ensemble Kalman filter"*
16:00-16:30:	**Hans Wackernagel** (MINES ParisTech); "Multivariate extremes in ensemble forecasting*",*
17:00-18:00	Presentation and tasting of 5 types Ægir beers at the hotel
18:00-19:00:	Visit the Ægir Brewery / time off
19:30/20:00	**Dinner**

Wednesday 10/06/2015:

09:15-09:45:	**Naratip Santitissadeekorn** (University of Surrey, U.K.); *"Data Assimilation for criminal model using EnKF"*
09:45-10:15:	**Mohammad El Gharamti** (NERSC), J. Valstar, G. Janssen, A. Marsman (Deltares, Utrecht, Netherlands), I. Hoteit (KAUST); *"Monitoring and Predicting Subsurface Organic Contaminants in the Port of Rotterdam using a Hybrid Ensemble Kalman Filter"*
10:15-10:45:	**Break**
10:45-11:15:	**Remus Hanea**, Torbjørn Ek (Statoil), Bogdan Seebacher (Technical University, Bucharest); *"Consistent joint up dates of facies maps and petrophysical heterogeneity using an ensemble based assisted history matching"*
11:15-12:00:	Daniel Berge Sollien**, Benoit Massart & Torbjørn Ek** (Statoil); *"Adaptive Plurigaussian Simulations or How to simulate facies realizations for three different real field cases"*
12:30-13:30:	**Lunch**
13:30-14:00:	**Mansoureh Jesmani,** Mathias C. Bellout, Bjarne Foss (NTNU), Remus Hanea (Statoil); "Particle Swarm Optimization Algorithm for Optimum Well Placement subject to Realistic Field Development Constraints"
14:00-14:30	**Cansin Yüksel**, Jörg Benndorf (TU Delft); "Application of the Ensemble Kalman Filter for Improved Mineral Resource Recovery"
14:30-14:45	**Break**
14:45-15:15	**Xiaodong Luo** (IRIS); "Optimization under uncertainty: A unified framework for a class of ensemble data assimilation algorithms"
15:15-15:20	**Concluding remarks**

16:05-19:57: Train from Flåm – Myrdal – Bergen

Speaker's name written in **Boldface**

Invited speaker

Posters;

Yuan Cheng, Sebastian Reich (University of Potsdam); *"Can we beat the curse of dimensionality?"*

M.E. Gharamti (NERSC), B. Ait-El-Fquih (KAUST), I. Hoteit (KAUST); *"A New Dual Ensemble Kalman Filter for State-Parameters Estimation in Subsurface Hydrology"*

Tudor Popa, Martin Verlaan (TU Delft), Remus Hanea (Statoil); *"An engineering approach for localization applied to an ensemble based history matching for the Norne field"*

Bogdan Sebacher (TU Delft), Remus Hanea, Torbjorn Ek (Statoil); *"Facies estimation and uncertainty quantification coupling an adaptive plurigaussian methodology with a Kalman filtering framework"*

Mario Trani, Gavin H. Graham (Total), Gautier Bureau (*Ecole Centrale de Nantes*, France), Pierre Bergey (Total) ; *"Automated history-matching of small-scale heterogeneities using stochastic surface-based property models"*

J. Vira (Finnish Meteorological Institute, Finland); *"Tracking volcanic plumes with the Ensemble Kalman Filter"*

Alina Astrakova, Dean Oliver (UNI Research CIPR); *"Duplicating initial facies realizations using the truncation plurigaussian model"*

Yuefei Zeng, T.Janjic (Ludwig-Maximilians-Universität München): *"Study of Conservation properties of Ensemble-Type Kalman Filter Algorithms with 2D Shallow Water Model"*

Alexey Khrulenko, Anton Shchipanov (IRIS); *"Using transient pressure measurements for assisted history matching"*

Jiping Xie, Laurent Bertino, Francois Counillon, and Christoph Renkl (NERSC); "*Validation of the reanalysis of TOPAZ system in last two decades"*