

# 2017 EnKF workshop program

Monday 12/06/2017

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<b>09:30-10:00:</b>	<b>Coffee &amp; registration</b>	
10:00-10:15:	Welcome, Xiaodong Luo (IRIS)	
<b>10:15-11:00:</b>	<b>Peter Jan Van Leeuwen</b> (University of Reading): "Nonlinear ensemble data assimilation in high-dimensional spaces"	Session chair: Andreas Stordal (IRIS)
11:00-11:30	<b>Jana de Wiljes</b> (Universität Potsdam), Sebastian Reich (Universität Potsdam and University of Reading), Wilhelm Stannat (Technical University of Berlin), Amirhossein Taghvaei, Prashant G. Mehta (University of Illinois at Urbana-Champaign): "EnKF-based particle filters"	
11:30-12:00	<b>Sanita Vetra-Carvalho</b> , Tirstan Quaife, Phil Browne (University of Reading): "Comparison of ensemble and particle filter based data assimilation methods for land surface models using JULES in EMPIRE"	
<b>12:00-13:00</b>	<b>Lunch</b>	
<b>13:00-13:45</b>	<b>Dan Crisan</b> , Colin Cotter, Darryl Holm, Wei Pan and Igor Shevchenko (Imperial College London): "Data Assimilation for Stochastic Transport Models"	Session chair: Alberto Carrassi (NERSC)
13:45-14:15	<b>Femke C. Vossepoel</b> , Karlijn Beers, Ramon F. Hanssen, Denis Voskov (Delft University of Technology ): "On estimating geomechanical parameters from surface deformation with a particle method"	
<b>14:15-14:45</b>	<b>Break (Check-in)</b>	
<b>14:45-15:30</b>	<b>Chris Snyder</b> (UCAR): "On multiscale data assimilation"	Session chair: Dean Oliver (Uni CIPR)
15:30-16:00	<b>M. Bocquet</b> (École des Ponts ParisTech and Université Paris-Est), P. Sakov (Bureau of Meteorology, Australia), J.-M. Haussaire (École des Ponts ParisTech and Université Paris-Est): "An iterative ensemble Kalman filter in presence of additive model error"	
16:00-16:30	<b>A. Fillion</b> ( École des Ponts ParisTech and Université Paris-Est, CERFACS), M. Bocquet ( École des Ponts ParisTech and Université Paris-Est), S. Gratton ( Université de Toulouse et ENSEEIHT): "Quasi static ensemble variational data assimilation"	
<b>16:30-16:45</b>	<b>Break</b>	
16:45-17:15	<b>Colin Grudzien</b> , Alberto Carrassi (NERSC), Marc Bocquet (École des Ponts ParisTech and Université Paris-Est): "Dynamically constrained uncertainty for the Kalman filter covariance in the presence of model error"	Session chair: Randi Valestrand (IRIS)
17:15-17:45	<b>S. Metref</b> (CNRS-CONICET-UBA), J. Ruiz (CNRS-CONICET-UBA and CIMA-CONICET-University of Buenos Aires), A. Hannart (CNRS-CONICET-UBA), M. Bocquet (École des Ponts ParisTech and Université Paris-Est), A. Carrassi (NERSC), M. Ghil (Ecole Normale Supérieure and UCLA): "Estimating model evidence using ensemble-based data assimilation with localization"	
<b>17:45-18:45</b>	<b>Poster session</b>	
<b>19:00</b>	<b>Dinner</b>	

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\*Invited talks in **blue** color, and speakers' names in **boldface**

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Tuesday 13/06/2017

08:30-09:15	<b>John Harlim</b> (The Pennsylvania State University): "Improving EnKF with machine learning algorithms "	Session chair:
09:15-09:45	<b>M. E. Gharamti</b> , K. Raeder, J. Anderson (NCAR): "Improved adaptive inflation for ensemble filters"	Geir Nævdal (IRIS)
09:45-10:15	<b>Patrick Raanes</b> (NERSC), Marc Bocquet (École des Ponts ParisTech and Université Paris-Est): "Gaussian scale mixtures and adaptive inflation for the EnKF"	
<b>10:15-10:30</b>	<b>Break</b>	
10:30-11:00	<b>Renping Lin</b> , Jiang Zhu, Fei Zheng (Institute of Atmospheric Physics, Chinese Academy of Sciences, China): "Applications of ocean data assimilation into a coupled climate model to East Asian summer monsoon simulations"	Session chair: Marc Bocquet (École des Ponts ParisTech and Université Paris-Est)
11:00-11:30	<b>Paula Maldonado</b> , Juan Ruiz (CIMA-CONICET/UBA, UMI-IFAECI/CNRS & CEN-UBA), Celeste Saulo (CIMA-CONICET/UBA, UMI-IFAECI/CNRS, CEN-UBA & Servicio Meteorológico Nacional): "Parameter sensitivity of the LETKF-WRF system for assimilation of radar observations in a case of deep convection in Argentina"	
11:30-12:00	<b>Alexandra Van Wesemael</b> , Lisa Landuyt, Niko E.C. Verhoest (Ghent University, Belgium): "Improving the accuracy of flood inundation forecasts through radar remote sensing observations"	
<b>12:00-13:00</b>	<b>Lunch</b>	
13:00-13:30	<b>O. Pannekoucke</b> (Météo-France and CERFACS), S. Ricci (CERFACS), R. Ménard (Environment and Climate Change Canada), M. Bocquet (École des Ponts ParisTech and Université Paris-Est), O. Thual ( Université de Toulouse): "Parametric Kalman filter : toward an alternative to the EnKF?"	Session chair: Xiaodong Luo (IRIS)
13:30-14:00	<b>John Maclean</b> (UNC Chapel Hill), Naratip Santitissadeekorn (University of Surrey) and Chris K.R.T. Jones (UNC Chapel Hill): "Coherent structure approaches for Lagrangian data assimilation"	
14:00-14:30	<b>Kristian Fossum</b> , Trond Mannseth (Uni Research CIPR), Andreas S. Stordal (IRIS): "Multi-level ensemble based data assimilation"	
14:30-14:45	<b>Event announcement, Frank Wilschut</b> (TNO): "OLYMPUS Field Development Optimization Challenge"	
14:45-19:00	Time off / Activities on your own; Hiking, boat trips, swimming, spa.....	
<b>19:00</b>	<b>Dinner</b>	

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# 2017 EnKF workshop program

Wednesday 14/06/2017

8:30-09:15	<b>Andreas S. Stordal</b> (IRIS), <b>Ahmed Elsheikh</b> (Heriot and Watt University): “Iterative ensemble smoothers in the annealed importance sampling framework”	Session chair: Remus Hanea (Statoil)
9:15-9:45	<b>Albert Reynolds</b> (University of Tulsa): “Modified ES-MDA algorithms for data assimilation and uncertainty quantification”	
9:45-10:15	<b>Geir Evensen</b> (IRIS and NERSC): “Properties of iterative ensemble smoothers for history matching”	
<b>10:15-10:45</b>	<b>Break (check out)</b>	
10:45-11:30	<b>Marius Heide</b> (Statoil): “Ensemble-based assisted history matching in practice”	Session chair:
11:30-12:00	<b>Anahita Abadpour</b> (Total): “Total’s Ensemble History Matching software and industrialization plans”	Geir Evensen (IRIS)
12:00-12:30	<b>Pål Næverlid Sævik</b> (UiB), <b>Martha Lien</b> (Octio AS), <b>Inga Berre</b> (UiB & CMR): “Fracture parameters as inversion variables for the EnKF and RML”	
<b>12:30-13:30</b>	<b>Lunch</b>	
13:30-14:00	<b>Dongxiao Zhang</b> , <b>Qinzhuo Liao</b> , <b>Haibin Chang</b> (Peking University): “Inverse Modeling with the aid of Surrogate Models”	Session chair:
14:00-14:30	<b>Hans Wackernagel</b> (MINES ParisTech, PSL Research University and NERSC): “Geostatistical multivariate spatial and temporal modelling”	Trond Mannseth (Uni CIPR)
<b>14:30-14:45</b>	<b>Break</b>	
14:45-15:15	Kristian Fossum, <b>Trond Mannseth</b> (Uni Research CIPR): "Assimilating spatially dense data for subsurface applications --- balancing information and degrees of freedom "	Session chair: Rolf Lorentzen (IRIS)
15:15-15:45	<b>Ariel Almendral Vázquez</b> , <b>Hanna Zdanowicz</b> (Norwegian Computing Center), <b>Matthew Owoyemi Iwajomo</b> , <b>Remus Hanea</b> (Statoil): “History matching with the stepwise regression method”	
15:45-16:15	<b>Xiaodong Luo</b> , <b>Tuhin Bhakta</b> and <b>Geir Nævdal</b> (IRIS): “Data driven adaptive localization with applications to ensemble-based 4D seismic history matching”	
<b>16:15-16:20</b>	<b>Concluding remarks</b>	

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# 2017 EnKF workshop program

**Poster session: 17:30-18:30, Monday 12/06/2017**

- **Tuhin Bhakta**, Xiaodong Luo, Geir Nævdal (IRIS): “Estimation of pressure-saturation and porosity fields from seismic AVA data using an ensemble based method”
- Marc Bocquet (École des Ponts ParisTech and Université Paris-Est) and **Alberto Carrassi** (NERSC): “Four-dimensional ensemble variational data assimilation and the unstable subspace”
- **Rolf J. Lorentzen**, Xiaodong Luo, Tuhin Bhakta, Randi Valestrand (IRIS): “Use of Correlation-Based Localization for History Matching Seismic Data”
- **Xiaodong Luo**, Rolf J. Lorentzen, Randi Valestrand, Geir Evensen (IRIS): “A general purpose localization method for ensemble based history matching applied to the full Norne field”
- Pål Næverlid Sævik (UiB), Martha Lien (Octio AS), Inga Berre (UiB & CMR): “Fracture parameters as inversion variables for the EnKF and RML” (A poster complementary to the oral presentation on 14 June, Wednesday. No presenter available)

\*Presenters' names in **boldface**