**CONFERENCE DAY 1**

**Saturday March 8th, 2014**  
Engineering Science Building 9 Lecture Hall II

08:15 – 9:00: **Breakfast**

09:00 - 10:30: Tutorial 1A: *Spatial Statistics for Environmental Challenges*  
Douglas Nychka (NCAR)

10:30 - 11:00: **Break**

11:00 - 12:30: Tutorial 1B: *Spatial Statistics for Environmental Challenges*  
Douglas Nychka (NCAR)

12:30 - 13:30: **Lunch in Campus Diner**

13:30 - 15:00: Tutorial 2A: *Spatial Statistics for Energy Challenges*  
Tilmann Gneiting (HITS and KIT)

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

15:30 - 17:00 Tutorial 2B: *Spatial Statistics for Energy Challenges*  
Tilmann Gneiting (HITS and KIT)

18:00 - 21:00: **Dinner in KAUST Beach**
CONFERENCE DAY 2

Sunday March 9th, 2014
Engineering Science Building 9 Lecture Hall II

08:15 – 9:00: Breakfast

08:45 - 09:00: Welcome Remarks
Mootaz Elnozahy, CEMSE Dean (KAUST)

09:00 - 09:45: A non-parametric entropy based approach to detect changes in climate extremes
Philippe Naveau (LNRS, CNRS)

09:45 - 10:30: Simulating the regional climate in Middle East climate using high-resolution general circulation and nested limited area models
Georgiy Stenchikov (KAUST)

10:30 - 11:00: Break

11:00 - 11:45: Assessing fit in Bayesian models for spatial processes
Mikyoung Jun (Texas A&M University)

11:45 - 12:30: Non-parametric cross covariograms for multivariate spatial data
Hao Zhang (Purdue University)

12:30 - 14:00: Lunch in Campus Diner

14:00 - 14:45: A stochastic space-time model for intermittent precipitation occurrences
Ying Sun (Ohio State University)

14:45-15:30: The need for improved assessment, evaluation and integration techniques in hydrological science
Matthew McCabe (KAUST)

15:30 - 16:00: Break

16:00 - 16:45: Assimilation of reservoir production data by the Ensemble Kalman Filter
Henning Omre (Norwegian University of Science and Technology)

16:45 - 17:30: Space-time mapping of ocean chlorophyll: Dynamical or data driven problem
Ibrahim Hoteit (KAUST)

19:00 - 21:00 Dinner in Island Recreation Center
CONFERENCE DAY 3

Monday March 10\textsuperscript{th}, 2014
Engineering Science Building 9 Lecture Hall II

08:15 - 9:00: Breakfast

09:00 - 09:45: \textit{State-of-the-art in probabilistic forecasting of wind and solar power generation}
Henrik Madsen (Technical University of Denmark)

09:45 - 10:30: \textit{Assessing the Performance of Model-Based Clustering Methods in Multivariate Time Series with Application to Identifying Regional Wind Regimes}
Amanda Hering (Colorado School of Mines)

10:30 - 11:00: Break

11:00 - 11:45: \textit{Multivariate max-stable spatial processes}
Simone Padoan (Bocconi University of Milan)

11:45 - 12:30: \textit{A fresh look at Stein’s half spectral spatial-temporal model}
John Kent (University of Leeds)

12:30 - 14:00: Poster Session lunch in Library

14:00 - 14:45: \textit{Spatial regression with PDE regularization}
Laura Sangalli (Politecnico di Milano)

14:45 - 15:30: \textit{Multiscale modeling of wear degradation in cylinder liner}
Raul Tempone (KAUST)

15:30-16:00: Break

16:00-17:30: \textit{Visit of CORNEA and SHAHEEN for external participants}

19:00 - 21:00: Dinner in Yacht Club
CONFERENCE DAY 4

Tuesday March 11\textsuperscript{th}, 2014
Engineering Science Building 9 Lecture Hall II

08:15 - 9:00: Breakfast

09:00 - 09:45: Equivalent kriging
William Kleiber (University of Colorado at Boulder)

09:45 - 10:30: Extending tapering to multivariate spatial processes: concepts and illustrations
Reinhard Furrer (University of Zuerich)

10:30 - 11:00: Break

11:00 - 11:45: Nonseparable and stationary covariance functions on spheres cross time
Emilio Porcu (University Federico Santa Maria)

11:45 - 12:30: New classes of nonseparable space-time covariance functions
Tatiyana Apanasovich (George Washington University)

12:30 - 14:00: Lunch in Campus Diner

14:00 - 14:45: Quasi-likelihood for spatial point processes
Rasmus Waagepetersen (Aalborg University)

14:45 - 15:30: Climate change and variability: A spatio-temporal data mining perspective
James Faghmous (University of Minnesota)

15:30 - 16:00: Break

16:00 - 16:45: Spatial statistics and coral reef ecology
Michael Berumen (KAUST)

16:45-17:00: Closing
CONFERENCE DAY 5

Wednesday March 12th, 2014

Local activities