CONFERENCE ON

STATISTICAL FOUNDATIONS OF UNCERTAINTY QUANTIFICATION FOR INVERSE PROBLEMS

Center for Mathematical Sciences, Meeting Room (MR) 2
University of Cambridge
June 19th to 22nd, 2017

Program

MONDAY, June 19th,

9:10; Opening
9:15-10:15; Andrew Stuart (Caltech), "Bayesian Inverse Problems: Overview, Challenges and New Directions"
10:15-10:45 coffee
10:45-11:30; Omiros Papaspiliopolous (Barcelona), "Markov chain Monte Carlo sampling for machine learning and inverse problems"
11:30-12:30; Aad van der Vaart (Leiden), "On Bayesian uncertainty quantification'
12:30-14:15, lunch break in the CMS
14:15-15:00, Elisabeth Gassiat (Paris), "Inference in nonparametric Hidden Markov models"
15:00-15:45, Subhashis Ghoshal (Raleigh), "Coverage of credible bands for nonparametric regression function and derivatives"
15:45-16:15 coffee
16:15-17:00, David Gross (Cologne), "Uncertainty quantification in quantum estimation"
17:00-17:45, Jason McEwen (UCL), "High-dimensional uncertainty estimation with sparse priors for radio interferometric imaging"

7pm, Pub Dinner at the Plough in Coton

TUESDAY, June 20th,

9:15-10:15; Sara van de Geer (ETH Zurich), "Efficiency of the de-biased Lasso"
10:15-10:45 coffee
10:45-11:30; Vladimir Koltchinskii (Georgia Tech), "Efficient estimation of functionals of covariance operators"
11:30-12:30; Ed George (UPenn), "Bayesian Penalty Mixing with the The Spike and Slab Lasso"
12:30-14:15, lunch break in the CMS
14:15-15:00, Matti Lassas (Helsinki), "Randomness in analytic inverse problems - a review and open problems."
15:00-15:45, Gabriel Paternain (Cambridge), "A nonparametric Bernstein-von Mises theorem for geodesic X-ray transforms"
15:45-16:15 coffee
16:15-17:00, Cun-Hui Zhang (Rutgers), "Bootstrap in large scale simultaneous inference."
17:00-17:45, Kengo Kato (Tokyo), "Uniform confidence bands for nonparametric errors-in-variables regression"

7:30pm, Conference dinner at Jesus College

WEDNESDAY, June 21st,

9:15-10:00; Jamie Robins (Harvard), "Empirical Higher Order Influence Function and Semiparametric efficiency under minimal conditons"

10:00-10:45, Ryan Tibshirani (Carnegie Mellon), "Total variation denoising on trees, grids, and graphs"

10:45-11:15 coffee

11:15-12:00; Axel Munk (Göttingen), "Nanoscale microscopy: A new challenge for uncertainty quantification"

12:00-12:45; Peter Mathé (Weierstrass Institute), "Bayesian inverse problems with non-commuting operators"

12:45-14:15, lunch break in the CMS

14:15-15:00, Rajarshi Mukherjee (Stanford), "Global Testing against Sparse Alternatives under Ising Models"

15:00-15:45, Zijian Guo (UPenn), "Inference for quadratic functionals in high-dimensional linear models"

15:45-16:15 coffee

16:15-17:00, Michael Sorensen (Copenhagen), "Estimation for SDEs with random effects using diffusion bridge simulation"

17:00-17:45, Jakob Söhl (Delft), "Nonparametric Bernstein-von Mises theorems for discretely observed compound Poisson processes"

THURSDAY, June 22nd,

9:15-10:00, Susanne Ditlevsen (Copenhagen), "Inferring visual processing in the brain"

10:00-10:45, Angelika Rohde (Freiburg), "Locally Adaptive Confidence Bands"

10:45-11:15, coffee

11:15-12:00, Botond Szabo (Leiden), "An asymptotic analysis of distributed nonparametric methods".

12:00-12:45, Bas Kleijn (Amsterdam), "On the frequentist validity of Bayesian limits"