Meeting in Mathematical Statistics
– New Procedures for New Data –

CIRM, December 15 – 19, 2014

Monday, December, 15:

Morning Session

- 08:50–09:00 Welcome
- 09:00–10:00 Ulrike von Luxburg (University of Hamburg)
  Statistics on Graphs and Networks (I).
- 10:00–10:30 Break
- 10:30–11:00 Andrea Montanari (Stanford University)
  Principal component analysis under constraints on the factors: Computational and statistical issues.
- 11:00–11:30 David Gamarnik (MIT)
  On the Max-Cut Over Sparse Random Graph.
- 11:30–12:00 Joe Neeman (UT Austin)
  Detection and recovery in the two-part, symmetric stochastic block model.

Evening Session

- 16:30–17:00 Vianney Perchet (Université Paris Diderot)
  From bandits to ethical clinical trials; optimal sample size for multi-stage problems.
- 17:00–17:30 Afonso Bandeira (Princeton University)
  Exact recovery in the Stochastic Block Model via convex relaxation.
- 17:30–18:00 Break
- 18:00–18:30 Mikhail Belkin (Ohio State University)
  Learning a Hidden Basis through Imperfect Measurements: Why and How.
- 18:30–19:00 Sébastien Loustau (Université d'Angers)
  Online (bi-)clustering with sparsity priors.

Tuesday, December, 16:

Morning Session

- 09:00–10:00 Ulrike von Luxburg (University of Hamburg)
  Statistics on Graphs and Networks (II).
- 10:00–10:30 Break
- 10:30–11:00 Richard Nickl (University of Cambdrige)
  Uncertainty quantification for low rank matrix recovery and quantum tomography problems.
- 11:00–11:30 Liza Levina (University of Michigan)
  Overlapping community detection by spectral methods.
- 11:30–12:00 Sahand Neghaban (Yale University)
  Individualized Rank Aggregation using Nuclear Norm Regularization.

Evening Session

- 16:30–17:00 Victor Chernozhukov (MIT)
  Gaussian Approximations, Bootstrap, and Z-estimators when $p \gg n$.
- 17:00–17:30 Sofia Olhede (University College London)
  Nonparametrics for networks.
- 17:30–18:00 Break
- 18:00–18:30 Ming Yuan (University of Wisconsin)
  Rate-Optimal Detection of Very Short Signal Segments.
- 18:30–19:00 Claire Boyer (Institut de Mathmatiques de Toulouse)
  Structured sparsity, structured acquisition and Compressed Sensing.

Wednesday, December, 17: Memorial Session for Laurent Cavalier

- 09:00–9:30 Alexandre Tsybakov (CREST-ENSAE)
  On estimation of linear and quadratic functionals.
- 9:30–10:00 Nicolas Hengartner (Los Alamos National Labs)
  Adaptive estimation for inverse problems with noisy operators.
- 10:00–10:30 Peter Mathé (Weierstrass Institute)
  Bayesian regularization of statistical inverse problems.
- 10:30–11:00 Break
- 11:00–11:30 Iain Johnstone (Stanford University)
  Gaussian limits for spiked multivariate F ratios.
- 11:30–12:00 Oleg Lepski (Université Aix-Marseille)
  Lower bounds in the convolution structure density model.

Thursday, December, 18:

Morning Session

- 09:00–10:00 Vladimir Koltchinskii (Georgia Tech)
  Concentration and asymptotics for sample covariance and its spectral projectors (I).
- 10:00–10:30 Break
- 10:30–11:00 Felix Abramovich (Tel Aviv University)
  Model selection in high-dimensional regression: some results and extensions.
- 11:00–11:30 John Duchi (Stanford University)
  Private Estimation: Definitions and Minimax Risks.
- 11:30–12:00 Arnak Dalayan (CREST-ENSAE)
  Guarantees for the approximate sampling from a log-concave density in high dimensions.

Evening Session

- 16:30–17:00 Rui Castro (TU Eindhoven)
  Detection of Correlations with Adaptive Sensing.
- 17:00–17:30 Axel Munk (Georg-August University Goettingen)
  Statistical registration problems in single molecule switching fluorescence microscopy.
- 17:30–18:00 Break
- 18:00–18:30 Po-Ling Loh (University of Pennsylvania)
  Local optima of nonconvex M-estimators.
- 18:30–19:00 Sébastien Bubeck (Microsoft Research)
  Detecting high-dimensional structure in random networks.

Friday, December, 19:

- 09:00–10:00 Vladimir Koltchinskii (Georgia Tech)
  Concentration and asymptotics for sample covariance and its spectral projectors (II).

- 10:00–10:30 Break

- 10:30–11:00 Jelena Bradic (UC San Diego)
  Quantile inference with model selection in mind.

- 11:00–11:30 Tengyuan Liang (University of Pennsylvania)
  Computational and Statistical Boundaries for Sub-matrix Localization Problems.

- 11:30–12:00 Karthik Sridharan (Cornell University)
  Relaxations: Deriving Procedures for the Interactive World.