INSPIRE 2009
Conference on information representation and estimation
Electrical and Electronic Engineering Department,
Imperial College London, London, UK,
September 21-24, 2009

Programme:

Monday 21/9

9:15-9:30 Welcome from the organizers (Room 408)
9:30-10:30 Plenary –Eric Moulines, `Convergence of the particle filter: state of the art and open problems' (Room 408)
10:30-11:00 Coffee Break
11:00- 13:00 Poster session (Room 509 a-b)

13:00-14:00 Lunch

14:00-17:00 Monte-Carlo methodology. Chair Alex Beskos (Room 408)
14:00:14:30 Simon Godsill, `Inference for alpha-stable stochastic processes using MCMC and Poisson sum representations.'
14:30-15:00 Ajay Jasra, `Sequential Monte-Carlo methods for point processes.'
15:00-15:30 Dan Crisan, `Monte-Carlo approximations of Feynman-Kac representations.'
15:30-16:00 Coffee Break
16:00-16:30 Gareth Roberts, `Bayesian non-parametric analysis of diffusions'
16:30-17:00 Cristophe Andrieu title:TBA

Tuesday 22/9

9:30-12:30 Statistical inference for nonstationary time series. Chair: Su Rao (Room 408)
9:30-10:00 Haeran Cho, `Multiscale and multilevel technique for consistent segmentation of nonstationary time series'
10:00-10:30 Yogesh Dwivedi, `A frequency domain approach for testing for second order Stationarity',
10:30-11:00 Coffee Break
11:00-11:30 S.Olhede , `Elliptically Modulated Signals'
11:30-12:00 Hernando Ombao, `Time-frequency dependence measures in multivariate time series'
12:00-12:30 David Stoffer, `I don't want to change the world, I'm not looking for a new England, I just want to estimate local spectra'

12:30-14:00 Lunch

14:00-17:30 Tutorial Session: Non-Stationary Time Series – Prof. Sofia Olhede (Coffee Break 15:30-16:00) – Room 408

Wednesday 23/9

9:30-13:00 Tutorial Session: Sparse Sampling of Structured Information - Dr Pier Luigi Dragotti (Coffee Break 11:00-11:30) – Room 408

13:00-14:00 Lunch

14:00-16:30 Sparse Sampling and Compressed Sensing (Room 408)

14:00:14:30 Li, Ling and Gan, `Statistical Restricted Isometry Property of Orthogonal Symmetric Toeplitz Matrices'
14:30-15:00 Yaghoobi, Daudet, and Davies, `Structured and Incoherent Parametric Dictionary Design'
15:00-15:30 V. Chaisinthop, `Semi-parametric Compression of piecewise smooth signals'
15:30-16:00 Coffee Break
16:00-17:00 Computer vision
16:00-16:30 Z. Engin, J. Ng and A.A. Bharath, Phase-invariant orientation fields for shape querying
16:30-17:00 Lewis Griffin, Local Symmetry Classification of Images

19:00-22:00 Banquet

Thursday 24/9

10:00-11:00 Plenary –Martin Vetterli, 'Inverse Problems and Sparsity with Applications in Sensor Networks and Ultrasound Tomography' (Room 408)
11:00-11:30 Coffee Break
11:30-12:30 Session: `Inverse Problems'
11:30-12:00 W. Lionheart, `Challenges in Electrical Impedance Tomography Reconstruction'
12:00-12:30 J. Aston, `Some statistical issues with reconstructed brain imaging data'

13:00-14:00 Lunch

14:00-15:00 Plenary –Z.Ghahramani, `Recent directions in nonparametric Bayesian machine learning' (Room 408)
15:00-15:30 Coffee Break
15:30-17:30 Session Probabilistic models: dynamic, graphical and latent variable models. Chair Ricardo Silva, UCL (Room 408)
15:30-16:00 Matthias Seeger, Compressed Sensing for Medical Imaging: Bayesian Experimental Design for Magnetic Resonance Imaging Sequences
16:00-16:30 Cedric Archambeau, Variational inference for partially observed diffusion processes.
16:30-17:00 Neil Lawrence, Latent Force Models with Gaussian Processes
17:00-17:30 Maneesh Sahani, Probabilistic methods for demodulation and multiband analysis.

Posters:

1. Mixed dictionary for sparse image representation with application to image folding, James Bowley and Laura Rebollo-Neira.
2. EFFICIENT SIGNAL RECONSTRUCTION FROM SHIFT-INVARIANT CONSISTENT SAMPLING, Akira Hirabayashi, Faculty of Engineering, Yamaguchi University, Japan
3. Convex optimisation for union of subspaces constrained inverse problems, Thomas Blumensath Mike E. Davies,Mark D. Plumbley
4. Adaptive Plenoptic Sampling, C. Gilliam, P.L. Dragotti, D.M. Brookes
5. SPARSE, an enhanced algorithm for cochlear implants. G. Li, M. Lutman
6. MULTICHANNEL SAMPLING OF SIGNALS WITH FINITE RATE OF INNOVATION USING EXPONENTIAL SPLINES, H. Akhondi Asl and P.L. Dragotti
7. Parameter estimation of rough di_erential equations with expected signature matching, Anastasia Papavaviliou and Christophe Ladroue
8. Bayesian Classification of Tongue Movement Based on Wavelet Packet Transformation, K.A. Mamun, M. Mace, M. E. Lutmen, R. Vaidyanathan, S. Wang
9. A sparse greedy algorithm for speech signals in noise, Maria G. Jafari and Mark D. Plumbley
10. Modeling and Design for Nested-Lattice Multi-Terminal Source Coding, Su Gao, Cong Ling
11. On μ-Shift-Invariance and Steerability of Linear Systems, Runyi Yu

Please notice: Lunches and Coffee Breaks will be served in Room 403