Confronting Intractability in Statistical Inference

Goldney Hall, 16-19th April 2012

Monday 16th

12.30-13.15	*Registration*
13.15-13.30	*Welcome*
13.30-14.30	**Scott Schmidler** (Duke University)
	Computational complexity and formal intractability in Bayesian inference
14.30-15.10	**Anthony Lee** (University of Warwick)
	Intractability, pseudo-marginal methods and many-core computation
15.10-15.50	**Krzysztof Latuszyński** (University of Warwick)
	Exact MCMC inference for Markov switching diffusion models
15.50-16.10	*Coffee*
16.10-17.10	**Darren Wilkinson** (Newcastle University)
	Bayesian inference for nonlinear continuous-time Markov processes
	Posters and Wine

Tuesday 17th

9.30-10.10	**Omiros Papaspiliopoulos** (Universitat Pompeu Fabra)
	Nonparametric inference for diffusions: a differential equations approach
10.10-11.10	**Andrew Stuart** (University of Warwick)
	Posterior consistency for Bayesian inverse problems
11.10-11.40	*Coffee*
11.40-12.40	**Sebastian Reich** (Universität Potsdam)
	Coupling and transference plans: From optimal transportation to Bayesian simulations
12.40-13.40	*Lunch*
13.40-14.20	**Jeremy Oakley** (University of Sheffield)
	Bayesian calibration of stochastic computer models
14.20-15.00	**Jonty Rougier** (University of Bristol)
	The challenge of data assimilation for long-time-scale environmental systems
15.00-15.30	*Coffee*
15.30-16.10	**Peter Jan van Leeuwen** (University of Reading)
	Particle filters in very high dimensional systems
16.10-16.50	**Simon Wood** (University of Bath)
	Simple ecological methods for complex ecological data
	Dinner at Riverstation

Wednesday 18th

9.30-10.30	**Gareth Roberts** (University of Warwick)
	Continuous sequential importance sampling for stochastic processes
10.30-11.10	**Nicolas Chopin** (ENSAE-CREST)
	SMC^2: an efficient algorithm for sequential analysis of state-space models
11.10-11.40	*Coffee*
11.40-12.40	**Arnaud Doucet** (University of Oxford)
	Derivative-free estimation of the score vector and observed information matrix
	with application to state-space models
12.40-13.40	*Lunch*
13.40-14.20	**Nial Friel** (University College Dublin)
	Evidence estimation for doubly intractable distributions
14.20-15.00	**Christian Robert** (Université Paris-Dauphine)
	ABC model choice: limitations & validation
15.00-15.30	*Coffee*
15.30-16.10	**Sumeetpal Singh** (University of Cambridge)
	Parameter estimation for hidden Markov models with intractable likelihoods
16.10-16.50	**Richard Wilkinson** (University of Nottingham)
	ABC: the inference to aim for

Thursday 19th

9.00-10.00	**Paul Fearnhead** (Lancaster University)
	Hamiltonian Monte Carlo: beyond kinetic energy
10.00-10.40	**Mark Girolami** (UCL)
	MCMC parameter sampling for intractable Markov jump process models of
	chemical kinetics via the linear noise approximation
10.40-11.00	*Coffee*
11.00-11.40	**Christian Lorenz Müller** (ETH)
	Common concepts in variable-metric gradient-free optimization and adaptive MCMC
11.40-12.20	**Geoff Nicholls** (University of Oxford)
	MCMC with a randomized acceptance probability
12.20-13.00	**Pierre Jacob** (Université Paris-Dauphine)
	Parallel Wang Landau