

SMC 2022, 4th–6th May, 2022. UC3M, Leganés (Madrid).

	Wednesday 4 th	Thursday 5 th	Friday 6 th
09:00 - 09:20	Welcome & Registration	Registration	Registration
09:20 - 10:00	Nicolas Chopin (ENSAE)	Pierre Del Moral (INRIA)	Matti Vihola (University of Jyväskylä)
10:00 - 10:40	Jana De Wiljes (University of Potsdam)	Pau Closas (Northeastern University)	Sumeetpal Singh (University of Cambridge)
10:40 - 11:20	Simon Maskell (University of Liverpool)	Arno Solin (Aalto University)	Oana Lang (Imperial College London)
11:20 - 11:50	Coffee Break	Coffee Break	Coffee Break
11:50 - 12:30	Christophe Andrieu (University of Bristol)	Dan Crisan (Imperial College London)	Deniz Akyıldız (The Alan Turing Institute)
12:30 - 12:45	Meetings & discussion	Martina Siwek (ONR Global)	Farewell
12:45 - 13:10		Meetings & discussion	
13:10 - 14:30	Lunch Break	Lunch Break	
14:30 - 15:10	Petar M. Djuric (Stony Brook University)	Ajay Jasra (KAUST)	
15:10 - 15:50	Nikolas Kantas (Imperial College London)	Anna Wigren (Uppsala University)	
15:50 - 16:20	Randal Douc (TELECOM SudParis)	Coffee break &	
16:20 - 17:30	Coffee break &	Poster Session 2 (16:00-17:30)	
17:30 - 18:00	Poster Session 1 (16:30-18:00)		

Invited talks

Wednesday, May 4

- Nicolas Chopin (ENSAE), “Waste-free Sequential Monte Carlo”
- Jana de Wiljes (University of Potsdam), “Contributions to High Dimensional Nonlinear Data Assimilation”
- Simon Maskell (University of Liverpool), “Fast Parallel Resampling as a Stepping Stone to Ubiquitous Sequential Monte Carlo”
- Christophe Andrieu (University of Bristol), “Comparison of Markov chains via weak Poincaré inequalities with applications”
- Petar M. Djuric (Stony Brook University)
- Nikolas Kantas (Imperial College London)
- Randal Douc (TELECOM SudParis), “Monotonic Alpha-divergence Minimisation for Variational Inference”

Thursday, May 5

- Pierre Del Moral (INRIA), “A theoretical analysis of one-dimensional discrete generation ensemble Kalman particle filters”
- Pau Closas (Northeastern University), “Augmented physics-based models in state estimation”

- Arno Solin (Aalto University), “Rao-Blackwellized Particle Smoothing for Simultaneous Localization and Mapping”
- Dan Crisan (Imperial College London), “Particle filters with nudging. Applications to Data Assimilation”
- Ajay Jasra (KAUST), “On unbiased score estimation for partially observed diffusions”
- Anna Wigren (Uppsala University), “Parameter elimination in particle Gibbs sampling”

Friday, May 6

- Matti Vihola (University of Jyväskylä), “On the behaviour of particle filter resampling algorithms with weakly informative potentials”
- Sumeetpal Singh (University of Cambridge), “Bias free particle filtering for a continuous time hidden Markov model with a Cox process observation model”
- Oana Lang (Imperial College London), “Data Assimilation for a Stochastic Rotating Shallow Water Model”
- Deniz Akyıldız (The Alan Turing Institute), “Convergence Properties for Optimised Adaptive Importance Samplers”

Poster sessions

Wednesday, May 4: Poster session #1

1. Gregoire Auffer, “Tempered, Anti-truncated, Multiple Importance Sampling”
2. Xiongjie Chen, “Normalising Flow-based Differentiable Particle Filters”
3. Adrien Corenflos (Aalto University), “De-Sequentialized Monte Carlo: a parallel-in-time particle smoother”
4. Francesca R Crucinio, “A divide and conquer approach to high dimensional filtering”
5. Hai-Dang Dau, “On the Backward Sampling Step in the Smoothing of State-Space Models”
6. Yazid Janati, “Variance estimation for Sequential Monte Carlo algorithms through backward sampling”
7. Mary Llewellyn, “Discretising a Continuous World: Accelerated Inference for State-Space Models via Hidden Markov Models”
8. Alessandro Mastrototaro, “Fast and numerically stable particle-based online additive smoothing: the AdaSmooth algorithm”
9. Rui Min, “State space partitioning based on constrained spectral clustering for block particle filtering”
10. Kostas Tsampourakis, “Approximating the likelihood ratio in Linear-Gaussian state-space models for change detection”
11. Alessandro Viani, “Free hyper-parameter selection and averaging in Bayesian inverse problems by SMC samplers”

Thursday, May 5: Poster session #2

1. Alaa Amri, “A Poisson Model with Spatially and Temporally Varying Coefficients”
2. Nicola Branchini, “Optimised Auxiliary Particle Filters: adapting mixture proposals via convex optimization”
3. Mauro Camara Escudero, “Sequential Monte Carlo for Approximate Manifold Sampling”
4. Alice Corbella, “Lifebelt particle filter for under-dispersed models”
5. Santeri Karppinen, “Conditional particle filters with bridge backward sampling”
6. Oskar Kviman, “KL/TV Resampling: Statistical Distance Based Offspring Selection in SMC Methods”
7. Caroline Lawless, “Inference of grammar complexity by Bayes factors using sequential Monte Carlo”
8. Sara Pérez-Vieites, “Nested smoothing algorithms for inference and tracking of heterogeneous multi-scale state-space systems”
9. Iñigo Urteaga, “Sequential Monte Carlo for multi-armed bandits”
10. Anna Wigren, “Marginalized particle Gibbs for multiple state-space models coupled through shared parameters”