

Invited Sessions:

Session A - Chair: Radu Craiu

- 1) Jeff Rosenthal - Temper, Temper: Optimising Tempered MCMC Algorithms
- 2) Mengxin Xi - Extrapolation of Tempered Posteriors
- 3) Quan Zhou - Restricted Spectral Gap Decomposition for Simulated Tempering Targeting Mixture Distributions
- 4) Saiffudin Syed - Scalable sampling using annealed sequential Monte Carlo samplers

Session B - Chair: KC Tsiolis

- 1) Aki Nishimura - MCMC using *bouncy* Hamiltonian dynamics: A unifying framework for Hamiltonian Monte Carlo and piecewise deterministic Markov process samplers
- 2) Sifan Liu - Introducing WALNUTS: A No-U-Turn Sampler with Locally Adaptive Step Size
- 3) Vivek Roy - Global-local MCMC using Riemannian geometry (Vivek Roy)
- 4) Nawaf Bou-Rabee - The No-Underrun Sampler: Gradient-Free, Locally-Adaptive MCMC

Session C - Chair: Ruyi Pan

- 1) Qian Qin - On spectral decomposition for Markov chains
- 2) Daniel Jerison - Honest MCMC bounds and empirical concentration inequalities
- 3) Kshitij Khare - Convergence properties of data augmentation algorithms for high-dimensional robit regression
- 4) Austin Brown - Some Insights into the Reliability and Limitations of Adaptive MCMC

Session D - Chair: Leo Watson

- 1) Aaron Smith - MCMC and "Modern" Unsupervised Clustering
- 2) Nianqiao Phyllis Ju - SOMA: a novel sampler for exchangeable variables
- 3) Diana Cai - Batch and match: score-based approaches for black-box variational inference
- 4) Kieran Campbell - Where next for Bayesian modelling of modern genomics data?

Session E - Chair: Morris Greenberg

- 1) Guanyang Wang - Antithetic Noise in Diffusion Models
- 2) Stephen Berg - Nonparametric mixture models and MCMC autocovariance estimation
- 3) Andrew Holbrook - Quantum Speedups for Multiproposal MCMC
- 4) Yang Chen - Tensor Gaussian Process with Contraction for Multi-Channel Imaging Analysis

Session F - Chair: Yichen Ji

- 1) Sinho Chewi - Toward ballistic acceleration for log-concave sampling
- 2) Murat Erdogdu - Learning Multi-Index Models with Neural Networks via Mean-Field Langevin Dynamics
- 3) Mylene Bedard - On Generalizing MALA: Minor Modifications, Major Acceleration
- 4) Debashis Mondal - Hamiltonian Monte Carlo computation in spatial statistics

Session G - Chair: James Flegal

- 1) Jairo Paqueno - Estimation of Bayes Factors from MCMC Samples in Bayesian Mixture Models
- 2) Filippo Ascolani - A fast non-reversible MCMC scheme for Bayesian mixture models
- 3) Hyebin Song - Statistical properties of initial sequence type variance estimators for reversible Markov chains
- 4) Felipe Medina-Aguayo - Jump Smarter, Not Harder: A Two-Stage Strategy for Model Selection

Session H - Chair: Galin Jones

- 1) Dootika Vats - The Beeline Algorithm: Approximate Sampling from Constrained Targets

- 2) Ricardo Baptista - Conditional simulation via entropic optimal transport
- 3) Andee Kaplan - An Improved Sampler for Recursive Bayesian Inference
- 4) Trevor Campbell- Asymptotically Exact Variational Inference via Involution Iterated Random Functions

Session I - Chair: Ricardo Baptista

- 1) Joshua Speagle - A Brief History of Time MCMC in Astronomy
- 2) Florian Maire - Towards variance reduction with the Occluded process
- 3) Simon Mak - ESPs: cost-efficient sampling of computationally expensive posterior distributions
- 4) Morris Greenberg - Restricted Search Graph MCMC via Birth-Death Processes

Contributed sessions:

Session J - Chair: Shunshi Matthew Zhang

- 1) Youngwoo Kwon - A Phase Transition in Sampling from Restricted Boltzmann Machines
- 2) Shunshi Matthew Zhang - Analysis of Langevin midpoint methods using an anticipative Girsanov theorem
- 3) Jing Jia - Antithetic Noise in Diffusion Models
- 4) Sabrina Sixta - Estimating MCMC convergence rates using common random number simulations

Session K - Chair: Marco Antonio Gallegos Herrada

- 1) Jimmy Lederman - Modeling Latent Underdispersion with Discrete Order Statistics
- 2) Charles Margossian - Monitoring the non-stationary variance for GPU-friendly MCMC
- 3) Alexander Kuhn - A scalable Bayesian framework for Galaxy emission line detection and redshift estimation
- 4) Siddharth Mitra - Information Contraction for Markov Chains

Session L - Chair: Max Hird

- 1) Max Hird - High Dimensional Adaptive MCMC with Reduced Computational Complexity
- 2) Marco Antonio Gallegos Herrada - Parallel tempering for inference in hidden Markov models

- 3) Ruixiao Wang - Sampling from Constrained Low-temperature Gibbs Measure and an Application in High-Dimensional Bayesian Inference