Bayesian Inference in Stochastic Processes Workshop
Milano, 26-28 May 2025

May 26, DAY 1

9.00-9.05   Opening

Invited talk 1 (Chair Antonio Pievatolo)
9.05-9.45   Exact BISP for point pattern data (Dani Gamerman)

Contributed session 1 (Chair Federico Cortese)
9.45-10.05   First-order integer-valued autoregressive processes with Generalized Katz innovations (Roberto Casarin)
10.05-10.25   Bayesian inference of sparsity in stationary, multivariate autoregressive processes (Sarah Heaps)
10.25-10.45   Variable Ordering in a Cholesky-MSV model for stock market data (Martina Zaharieva)

10.45-11.15   Coffee break

Invited session J-ISBA (Chair Beatrice Franzolini)
11.15-11.45   Enriched zero-inflated stochastic block models (Louise Alamichel)
11.45-12.15   Bayesian calculus and predictive characterizations of (extended) feature allocation models (Lorenzo Ghilotti)
12.15-12.45   Multivariate Species Sampling Models (Giovanni Rebaudo)

12.45-14.15   Lunch & *Poster session* 1

Invited session Deep neural network and process priors for Bayesian inference (Chair Stefano Favaro)
14.15-14.45   Bayesian deep neural networks with heavy-tailed priors (Paul Egels)
14.45-15.15   Function-Space MCMC Algorithms for Wide Bayesian Neural Networks (Lucia Pezzetti)
15.15-15.45   Trace-class Gaussian priors for Bayesian learning of neural networks (Torben Sell)

15.45-16.15   Coffee break

Contributed session 2 (Chair Justin Harvey)
16.15-16.35   Modeling Neural Switching via Drift-Diffusion Models (Nicholas Marco)
16.35-16.55   Bayesian inference from time series of allele frequency data using exact simulation techniques (Jaromir Sant)
16.55-17.15   Bayesian Sequential Batch Design with Hierarchical Gaussian Processes (Shuang Zhou)

Invited talk 2 (Chair Elisa Varini)
17.15-17.55   On advances in Iterative Gaussian Processes (José Miguel Hernández-Lobato)

May 26, DAY 1

Poster session 1

The poster session is scheduled from 12:45 to 14:15, and posters may remain on display throughout the entire day.

1) Compounding Political and Energy Risks: A clustered stochastic multi-COVOL model (Ovielt Antonio Baltodano Lopez)

2) Affine invariant ensemble transform methods to improve predictive uncertainty in neural networks (Diksha Bhandari)

3) A non-informative prior for nonparametric inference on time series (Ylenia Francesca Buttigliero)

4) Hierarchical Shot Noise Cox Process Mixture Models (Alessandro Carminati)

5) A Bayesian non-parametric framework to uncover the hidden structure of contemporary sexual networks in Africa (Yu Chen)

6) Bayesian causal inference for observational studies using factor models (Lea Anna Cozzucoli)

7) Optimal filtering for 2-parameter Poisson-Dirichlet diffusions (Marco Dalla Pria)

8) A generalised Bayesian Framework for modelling interactions in closed systems: an application to social contacts (Shozen Dan)

9) A Bayesian hierarchical model for air pollution source apportionment (Michela Frigeri)

May 27, DAY 2

Invited talk 3 (Chair Sonia Petrone)

9.00-9.40 The Dynamic Triple Gamma as a Shrinkage Process for Time-Varying Parameter Models (Sylvia Frühwirth-Schnatter)

Contributed session 3 (Chair Roi Naveiro Flores)

9.40-10.00 MMAF-guided learning for spatio-temporal data (Imma Valentina Curato)

10.00-10.20 Bayesian Hierarchical Spatio-Temporal Modelling of Extremes Using the Blended GEV Distribution (Fernando Mayer)

10.20-10.40 Bayesian Inference for Site-Dependent Evolutionary Models: Applications to Vaccine Design (Scott C. Schmidler)

10.40-11.10 Coffee break

Invited talks 4-5-6 (Chair Nicholas Polson)

11.10-11.40 Global shrinkage and local variable selection in spatially varying coefficient models (Nicolas Bianco)

11.40-12.10 Filtering procedures for dynamic multinomial probit models (Augusto Fasano)

12.10-12.40 Symmetry properties of dependent random partitions (Beatrice Franzolini)

12.40-14.10 Lunch & *Poster session 2*

Contributed session 4 (Chair Becky Tang)

14.10-14.30 Gaussian Invariance in Markov Chain Monte Carlo (Angelos Alexopoulos)

14.30-14.50 Exchangeable random permutations for graph matching (Francesco Gaffi)

14.50-15.10 Bayesian Markov-Switching Partial Reduced-Rank Regression (Matteo Iacopini)

15.10-15.30 Bayesian inference for oscillatory systems using the pcLNA algorithms (Ben Swallow)

15.30-15.50 Sequential Gaussian Processes for Online Learning of Nonstationary Functions (Michael Minyi Zhang)

15.50-16.20 Coffee break

Invited session ISBA-IS (Chair Refik Soyer)

16.20-16.40 Bayesian Zero-Inflated Poisson State Space Models: Forecasting Consumer Goods Demand (Tevfik Aktekin)

16.40-17.00 Adversarial Risk Analysis for Sequential Count Data Models (Tahir Ekin)

17.00-17.20 Bayesian inference for generalized linear models via quasi-posteriors (Tommaso Rigon)

Invited talk 7 (Chair Amy Herring)

17.20-18.00 Bayesian modeling of multiple network data (Bernardo Nipoti)

20.00-23.00 Dinner

May 27, DAY 2

Poster session 2

The poster session is scheduled from 12:40 to 14:10, and posters may remain on display throughout the entire day.

1) Optimizing Product Launching Decisions with Adversarial Risk Analysis (Pablo García Arce)

2) Parallel computations for Metropolis Markov chains (Sebastiano Grazzi)

3) Estimation of Species Richness via Gibbs-type priors (Giuseppe Mignemi)

4) Who is most affected by temperature-related deaths in Austria and where? (Corinna Perchtold)

5) Media Bias and Polarization Through the Lens of a Markov Switching Latent Space Network Model (Antonio Peruzzi)

6) Zero-order parallel sampling (Francesco Pozza)

7) Bayesian Transfer Learning for Artificially Intelligent Geospatial Systems: A Predictive Stacking Approach (Luca Presicce)

8) Markov Switching Multiple-equation Tensor Regressions (Qing Wang)

9) Dependent Dirichlet Process in Causal Inference (Dafne Zorzetto)

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May 28, DAY 3

Invited talk 8 (Chair David Rios Insua)

9.00-9.40 Interpretable AI in scientific applications: Bayesian pyramids (David Dunson)

Contributed session 5 (Chair Julyan Arbel)

9.40-10.00 The Wiener disorder problem with random post-disorder drift (Bruno Buonaguidi)

10.00-10.20 Characterization of exchangeable Hoeffding decomposable sequences (Hristo Sariev)

10.20-10.40 Linear reversible processes and the three-parameter distribution of random integer partitions (Sergey Sosnovskiy)

10.40-11.00 Vecchia Gaussian processes: Probabilistic properties, minimax rates and methodological developments (Yichen Zhu)

11.00-11.30 Coffee break

Invited talks 9-10 (Chair Fabrizio Ruggeri)

11.30-12.00 Cost-aware simulation-based inference (François-Xavier Briol)

12.00-12.30 Deep generative surrogates aiding spatial statistics (Elizaveta Semenova)

12.30-12.35 Farewell