

Reflections on the bouncy particle sampler and Zig-Zag sampler

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In recent years piecewise deterministic Markov processes (PDMPs) have emerged as a promising alternative to classical MCMC algorithms. In particular these PDMP based algorithms have good convergence properties and allow for efficient subsampling. Although many different PDMP based algorithms can be designed, two algorithms play fundamental roles: the Bouncy Particle sampler and the Zig-Zag sampler. In this talk both algorithms will be introduced and a comparison of properties of these algorithms will be presented, including recent results on ergodicity and on scaling with respect to dimension.

Références

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