

Probabilistic sampling for physics: finding needles in a field of high-dimensional haystacks

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Type: Non spécifié

Exploration with saddle point search

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According to Large Deviation Principles, in a metastable regime, a local explorer is likely to exit from local modes through energy saddle points. Looking alternatively for minimizers or saddle points thus appears as a reasonable direction in order to find unknown modes in a high-dimensional non-convex landscape. The goal of this talk is to introduce the useful tools for that purpose, in particular saddle-point local search algorithms, free energy estimation, and switched diffusion processes.

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Classification de Session: Challenge and Perspective