Institut für Mathematik

Seminar zur Stochastik

Donnerstag, 16. Mai 2024
13 Uhr s.t.
SR 013a, August-Bebel-Str. 4

Philip Schär
(Universitätsklinikum Jena)

"Slice Sampling in Polar Coordinates"

Abstract: To gain insights from a probabilistic model of given data, it is often necessary to generate a large number of (approximate) samples from a distribution determined by the model, e.g. a Bayesian posterior. Approaches for accomplishing this task generally differ in the quality of the approximate samples they produce and the computational cost associated with their use. We study and extend a particular class of such sampling methods, called *slice sampling*. In particular, our work has shown *polar slice sampling* (PSS), one of the methods in this class, to have certain highly desirable theoretical properties pertaining to the quality of the samples it produces. Since PSS cannot be implemented in a computationally efficient manner, we have also devised *Gibbsian polar slice sampling*, which aims to retain the desirable properties of PSS while ensuring computational efficiency.

Alle Interessierte sind herzlich eingeladen

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