

BERNOULLIS TAFELRUNDE

GRADUATE STUDENT SEMINAR

Thursday, 6 December 2018, 12:15-13:00

Seminarraum 05.002, Spiegelgasse 5

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Gaussian Processes for Parametric Modeling of Time Series

ABSTRACT

Ordinary and Stochastic Differential Equations are the backbone of many quantitative sciences. While the parametric structure of such a model can often be derived from first principles, one is often left with constants that need to be learned from data. In the absence of closed form solutions, this learning is often performed via schemes relying on numerical integration. However, such procedures are usually very computationally expensive, especially in a Bayesian setting. In this talk, I will present some of our work showing how to leverage state of the art machine learning techniques to significantly accelerate parameter inference in SDE and ODE systems.