

# 中央研究院統計科學研究所

## 學術演講

講題：Langevin Algorithms in Machine Learning

演講人：Prof. Lingjiong Zhu

Department of Mathematics, Florida State University

時間：2024-08-07(Wed.) 10:30-12:00

地點：Auditorium, B1F, Institute of Statistical Science ; The tea reception will be held at 10:10.

備註：Online live streaming through Cisco Webex will be available.

### Abstract

Langevin algorithms are core Markov Chain Monte Carlo methods for solving machine learning problems. These methods arise in several contexts in machine learning and data science including Bayesian (learning) inference problems with high-dimensional models and stochastic non-convex optimization problems including the challenging problems arising in deep learning. In this talk, we illustrate the applications of Langevin algorithms through three examples: (1) Langevin algorithms for non-convex optimization; (2) Decentralized Langevin algorithms; (3) Constrained sampling via penalized Langevin algorithms.



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