For favour of Posting

THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

PHD STUDENT SEMINAR

SDE-based deep generative model

By

Mr. Gefei WANG

Abstract

Deep generative models are a category of machine learning models that utilizes deep neural networks to model data distributions and generate new samples. In this seminar, we first introduce our proposed framework to learn a generative model via Schrödinger Bridge, as a stochastic differential equation (SDE)-based generative model. The generative learning task can be formulated as interpolating between a reference distribution and a target distribution based on the Kullback-Leibler divergence, which can be characterized via an SDE on [0, 1] with a time-varying drift term. However, although SDE-based generative models have achieved state-of-the-art performance, they have a less efficient sampling procedure compared with other models such as generative adversarial networks. In the next part, we will discuss feasible ways to solve this problem.

Date : 2 May 2022 (Monday)
Time : 4:00pm
Zoom Meeting : https://hkust.zoom.us/j/97557961147 (Passcode: 672570)

All are Welcome!