

Multi-fidelity method for a class of kinetic models with uncertainties

Tuesday, December 13, 2022 11:00 AM (45 minutes)

In this talk, we will discuss some recent development on the multi-fidelity methods for solving a class of kinetic equations with multi-dimensional uncertainties and different scalings. The Boltzmann equation, linear transport equation and epidemic transport system will be particularly studied, followed by some formal error estimates. We will also briefly discuss applying deep learning approach to solve kinetic problems.

These are joint work with Giulia Bertaglia, Lorenzo Pareschi and Xueyu Zhu.

Presenter: LIU, Liu