THE UNIVERSITY   **OF HONG KONG**

Institute of Mathematical Research
Department of Mathematics

Numerical Analysis Seminar

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

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Abstract

In this talk, we will discuss some work on multi-fidelity methods for solving a class of kinetic models with uncertainties and multiple scales. The Boltzmann equation, linear transport equation, epidemic transport system, Vlasov-Poisson system will be particularly studied. We will provide some formal error analysis. Numerical experiments will be presented to justify the robustness and accuracy of our proposed schemes. These are joint works with Lorenzo Pareschi, Xueyu Zhu, Guilia Bertaglia, Shi Jin etc.

Date:	January 24, 2024 (Wednesday)
Time:	3:00 – 4:00pm
Venue:	Rm 210, Run Run Shaw Bldg., HKU

All are welcome