



DEPARTMENT OF APPLIED MATHEMATICS 應用數學系

# Seminar

# **Prof Li Wang**

**University of Minnesota, USA** 

## Topic

Learning-enhanced Structure-preserving Particle Methods for Nonlinear Partial Differential Equations

## Date | Time

5 June 2024 (Wednesday) | 04:00pm – 05:00pm (HK Time)

#### **Venue:**

Y302, Main Campus

### **Abstract:**

In the current stage of numerical methods for PDE, the primary challenge lies in addressing the complexities of high dimensionality while maintaining physical fidelity in our solvers. In this presentation, I will introduce deep learning assisted particle methods aimed at mitigating some of these challenges. Two scenarios will be considered, one is for general nonlinear Wasserstein-type gradient flows, and the

# other is for the Landau equation in plasma physics.

#### **ALL ARE WELCOME**