



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

PHD STUDENT SEMINAR

**High-order finite difference gas-kinetic scheme
for the Euler and Navier-Stokes equations**

By

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Abstract

With the two-stage fourth-order temporal evolution of the gas distribution function and Weighted Essential Non-Oscillatory (WENO) reconstruction, a high-order finite difference gas-kinetic scheme is proposed. Different from the previous high-order finite volume gas-kinetic methods, which uses the discontinuous initial reconstruction at the cell interface, the present scheme is the finite difference method with a continuous flow distribution at the grid point. The primary 1d numerical tests has been obtained.

Date : 15 May 2020 (Friday)

Time : 11:00am – 12:00noon

Zoom Meeting : <https://hkust.zoom.us/j/91600762115>

All are Welcome!