

PolyU PDE Seminar Series

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Topic

On a free boundary value problem for the Boltzmann equation

Date | Time

14 July 2025 (Monday) | 16:30 – 17:30 (HK Time)

Venue

EF312

Abstract:

While significant progress has been made on free boundary problems for fluid equations, much less is known about their counterparts in kinetic theory. In this talk, I will present our recent study on a free boundary value problem for the Boltzmann equation. By introducing a novel conformal transformation, we establish the global existence of solutions using an L^∞ – L^2 approach. Furthermore, the uniqueness of solutions is verified through a localized weighted $W^{1,p}$ estimate.

ALL ARE WELCOME