



PolyU PDE Seminar Series

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Topic

Asymmetric incompressible jet flows with vorticity

Date| Time

1 September 2025 (Monday) | 16:30 – 17:30 (HK Time)

Venue

R602

Abstract:

In this talk, we introduce the well-posedness of the two-dimensional asymmetric incompressible jet flow with general vorticity, which emerging from a semi-infinitely long nozzle. More precisely, for any given atmosphere pressure and any convex horizontal velocity of incoming flow, we establish the existence and uniqueness of the solution to the asymmetric jet flow problems, and the two asymmetric free streamlines initiate smoothly at the endpoints of the nozzle walls. Moreover, the convexity of the free boundaries will be obtained, provided that the nozzle walls are concave.

ALL ARE WELCOME