

PolyU-Analysis Seminar

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Topic

Structural Stability of Subsonic Boundary Layer

Date | Time

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

Venue:

Y302, Main Campus

Abstract:

The stability and instability of the boundary layer is a fundamental problem in the boundary layer theory and there are very few works on the compressible fluids. In this paper, we show the nonlinear stability of the shear flow for two dimensional steady compressible Navier-Stokes equations under no-slip boundary condition in Sobolev spaces. Compared with the incompressible case, the interaction between density and velocity causes more difficulties both in the analysis of linear and nonlinear systems.