Kinetic Seminar

Well-posedness of 3D Navier-Stokes and MHD equations with partial fractional hyper-diffusion

by

Professor Li LI
Ningbo University

Abstract :

It is well-known that by substituting standard velocity and magnetic diffusion with fractional hyper-diffusion, the Navier-Stokes and magnetohydrodynamic equations are well-posed. We examine the 3D Navier-Stokes and magnetohydrodynamic equations with partial fractional hyper-dissipation. It is proved that when each component of the velocity and magnetic field lacks dissipation along certain directions, the existence and conditional uniqueness of the solution are maintained.

Date :	February 16, 2024 (Friday)
Time :	3:00pm – 4:00pm (Hong Kong SAR)
Venue:	Room 222, Lady Shaw Building,
	The Chinese University of Hong Kong, Shatin

All are Welcome