

abstract

MATHEMATICAL PHYSICS

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

We will present some recent developments in the quasi-geostrophic equations. We show that local solutions to critical and super-critical dissipative quasi-geostrophic equations have higher regularity, although one gets lower derivative in the dissipation term than in the flow term. As an application, a global well-posedness result is obtained for 2D critical dissipative quasi-geostrophic equations with periodic or non-periodic initial data in the critical H^1 space. Part of the talk is based on joint work with Dapeng Du.