

DIFFERENTIAL GEOMETRY/PDE SEMINAR

WEDNESDAY, JANUARY 15, 2014

PADELFORD C-36

3:50PM–5PM

Regularity, blow up, and small scale creation in fluids

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The Euler equation of fluid mechanics describes flow of inviscid and incompressible fluid, and has been first written in 1755. The equation is both nonlinear and nonlocal, and its solutions often create small scales easily and tend to be unstable. I will review some of the background, and then discuss a recent sharp result on small scale creation in solutions of 2D Euler equation. I will also indicate links to the long open question of finite time blow up for solutions of 3D Euler equation.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, www.math.washington.edu, follow the link **Seminars, Colloquia, and Conferences**).

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