Advanced Ordinary Differential Equations—Spring 2012
(MATH 5253—Section 001)

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Hours of Class Meeting:

Tuesday, Thursday 12:30—1:45 MS 428

Office Hours:

Please feel free to stop by my office if you have questions or ideas on the materials covered in class.

Textbook:

This course covers various topics in mathematical fluid mechanics with an emphasis on recent progress. The books listed below may help you understand some of the topics covered in class:

- A. Majda and A. Bertozzi, Vorticity and Incompressible Flow, Cambridge University Press, 2002.
- A. Majda, Introduction to PDEs and waves for the atmosphere and ocean, Courant Lecture Notes, 2003.
- Ch. Doering and J. Gibbon, Applied Analysis of the Navier-Stokes Equations, Cambridge University Press, 1995.
- E. Stein, Singular integrals and differentiability properties of functions, Princeton University Press, 1970.
- H. Bahouri, J.-Y. Chemin and R. Danchin, Fourier Analysis and Nonlinear PDEs, Springer, 2011.

Grading Policy:

- Class Attendance—70% , Lectures—10%, Participation—20%
- Cut-offs for letter grades: A (90-100); B (75-89); C (60-74)