COLLOQUIUM
Department of Mathematics

Fluid Mechanics

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Friday, February 12, 2010
**3:00 PM**
Rhodes Tower 1516

Abstract: This talk is a brief tutorial on a very broad branch of Physical Theory. The mathematical foundations of fluid mechanics will be presented in such a way to emphasize the conceptual similarity between fluid mechanics and continuum mechanics. After a brief history, the fundamental theorems will be presented. Among the important classes of solved problems, axisymmetric flow will be discussed. Among the important unsolved problems, wetting and moving contact lines will be discussed. Finally (time permitting), the statistical-mechanical underpinning of hydrodynamics will be presented showing how various physical properties of fluids arise.
Refreshments at 2:30PM in RT 1517