

*PDE, Complex Analysis
and Differential Geometry*



Speaker: **John Holmes**
University of Notre Dame

Tuesday, November 18, 2014
11:00 am
Room: 258 Hurley Hall

Title: Well-posedness of the generalized viscous Burgers equation on the circle

Abstract:

We consider the generalized viscous Burgers equation on the circle \mathbb{T} and show that the corresponding Cauchy problem is well-posed in homogeneous Sobolev spaces \dot{H}^s . Also, we extend the well-posedness to the Gevrey class of functions. Moreover, we find that the solution is in the non-isotropic class of functions which are Gevrey- r in the spacial variable and Gevrey- $2r$ in the time variable, for any $r > 1$.