

**Analysis and Applications:  
A Conference in Honor of Elias M. Stein  
Princeton University, Princeton, New Jersey  
May 16-20, 2011**

Speaker: Yakov G. Sinai (Princeton University)

Date/Time: Tuesday, May 17, 2011 / 4:45-5:45 pm

Talk Title: Bifurcations of solutions of the 2-dim Navier-Stokes system

Abstract:

In our joint paper with Dong Li we consider the dynamics of the stream functions on the 2-dim tori. Critical points of stream functions correspond to viscous vortices which play an important role in the dynamics of atmosphere. We construct solutions in which vortices can merge or split. This can be connected with cascades of energy in the 2-dim fluid dynamics.