

University of Notre Dame Department of Mathematics
**PDE, COMPLEX ANALYSIS AND DIFFERENTIAL
GEOMETRY SEMINAR**

Artem Pulemotov

University of Chicago

Will give a lecture entitled:

"Parabolic equations and the Ricci flow on manifolds with boundary"

On

Tuesday, September 21, 2010

At

11:00 AM

In

258 Hurley Hall

Abstract

In the first part of the talk, we will focus on a second-order quasilinear parabolic equation in a vector bundle over a compact manifold M with boundary. Our goal is to explore the short-time existence of solutions to this equation. In the second part, we will discuss the Ricci flow on M . The objective is to propose new boundary conditions for the flow and state a series of short-time existence results.