DIFFERENTIAL GEOMETRY/PDE SEMINAR

Wednesday, February 7, 2007
Padelford C-36
3:50-5pm

A free boundary problem for fully nonlinear parabolic equations

Emmanouil Milakis

(UW)

We study a nonlinear two phase Stefan-type free boundary problem in a Lipschitz domain. Such problems arise when a state variable v diffuses in any of two given states (solid-liquid, burnt-unburnt etc.) but suffers a discontinuity in its behaviour across some value (for example $v = 0$) that indicates phase transition. We will discuss the optimal regularity of the viscosity solution and that Lipschitz free boundaries are C^1.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, `www.math.washington.edu`, follow the link **Seminars, Colloquia, and Conferences**).