Differential Geometry/PDE Seminar

Friday, September 21, 2012
PDL C-401
11AM–Noon

The generalized Jang equation and asymptotic behaviors

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Predicting turbulent flame speed ($s_T$) is a fundamental problem in turbulent combustion theory. Several simplified models have been proposed to study $s_T$. The G-equation (A Hamilton-Jacobi level set equation) is a very popular model in turbulent combustion. Two important projects are (1) establish the theoretical existence of $s_T$ and (2) determine the dependence of turbulent flame speeds on the turbulence intensity (think of the relation between the spreading velocity of wild fire and strength of the wind). In this talk, I will present some theoretical results under the G-equation model. These are joint works with Jack Xin.

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).