

DIFFERENTIAL GEOMETRY/PDE SEMINAR

FRIDAY, OCTOBER 7, 2005

DEN 311

2:30-3:20PM

Thread-wire surfaces

Ben Stephens

(MIT)

I'll begin my talk by showing videos of experiments I did with wire, thread and soap surfaces. These experiments inspired a variety of predictions about solutions to the Thread Problem (first solved by H.W.Alt in 1973). I'll then discuss pure math results which confirm many of these predictions, including Lipschitz bounds and constraints on the geometry and topology of solutions. Finally I'll discuss regularity questions prompted by the cusps which typically appear in the solutions.

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**).

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