

INVERSE PROBLEM AND DIFFERENTIAL GEOMETRY/PDE SEMINAR

WEDNESDAY, SEPTEMBER 28, 2005

PADELFORD C-36

3:50-5PM

An inverse boundary value problem for identifying a time
dependent inclusion for the heat equation

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For a one space dimensional heat conductive medium with a time dependent unknown inclusion, we have developed a reconstruction procedure of the probe type method from the Neumann to Dirichlet map as a measurement. Most of the argument holds for higher space dimensions except the analysis of the behavior of the so called reflected solution which becomes very tedious for the higher space dimensional case. This problem originated from the study by Prof. V. Isakov et. al about the uniqueness of the identification not only for one space dimension. As for the associated reconstruction problem, as far as I know, this is the first attempt.

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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