THE DEPARTMENT OF MATHEMATICAL SCIENCES

Indiana University - Purdue University Fort Wayne

is pleased to present

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University of Louisiana at Lafayette

Blow-up for the Heat Equation with a General Memory Boundary Condition

Abstract

In this talk, we study the long-time behavior of nonnegative solutions of the heat equation with a general memory boundary condition. We present conditions on the memory term for finite time blow-up. We also establish global existence results through both analytical and numerical methods. We then show that under certain conditions blow-up occurs only on the boundary. And we obtain upper and lower bounds on the blow-up rate for a specific memory term.

11:00 – noon, Wednesday, April 23, 2014.

Location: KT 218

http://ipfw.edu/departments/coas/depts/math/news/seminars.html