



WPI

HAROLD J GAY LECTURE SERIES

PDEs and Fractals

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Progress in Hyperbolic Conservation Laws

Friday, January 22, 2010

3:15pm, Bartlett Presentation Room

ABSTRACT Hyperbolic Conservation Laws, namely nonlinear hyperbolic systems of first order partial differential equations in divergence form, have an illustrious pedigree and diverse applications to physics and beyond. Despite dramatic progress in recent years, this area is still replete with challenging open problems. The lecture will provide a glimpse to the history, the current state of affairs and the emerging trends in this field.

Geometry with its applications has been at the heart of the development of partial differential equations and boundary value problems since the very beginning. In physics, biology, economics, and other applied fields, a variety of new problems are now emerging that display unusual geometrical, analytical and scaling features, possibly of fractal type. The objective of these lectures is to acquire the view of outstanding mathematicians on the subject of differential equations and fractals, and their developments and applications, in a broad perspective encompassing both classical highlights and contemporary trends.

Sponsored by WPI and hosted by the Department of Mathematical Sciences
Coffee and tea available one half hour before lecture time in Stratton Hall 107

Participation of faculty and students is most welcome

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