

MATHEMATICS DEPARTMENT
North Carolina State University

DIFFERENTIAL EQUATIONS SEMINAR

Monday, November 6, 2006
3:00 p.m. 330 Harrelson Hall

Bruce Pitman

Department of Mathematics
University at Buffalo
and

Statistical and Applied Mathematical Sciences Institute (SAMSI)

“Computing geophysical flows in the face of uncertainty”

We examine geophysical mass flows: rockfalls, granular avalanches, pyroclastic and debris flows. These flows can cause property damage and loss of life. This talk reports on an interdisciplinary effort directed at hazard assessment. We review efforts in modeling geophysical flows, and the development of TITAN2D, a computing environment for simulation of flows over natural terrain. Many of the parameters and data that are inputs to TITAN are poorly constrained, and may be considered random. We discuss approaches for computing with uncertainty, and how to identify “at risk” areas.

Graduate students are invited to attend.

For questions, comments, and offers to talk, contact Steve Schechter, schechter@math.ncsu.edu. Please visit the DE Seminar web page at www.math.ncsu.edu/seminars.html.