University of Puerto Rico Mayaguez Campus
Faculty of Arts and Sciences
Department of Mathematical Sciences
call box 9000, Mayagüez, P.R. 00681

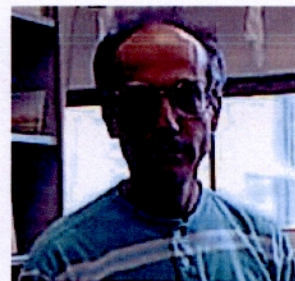THE DEPARTMENT OF MATHEMATICAL SCIENCES PROUDLY PRESENTS

COLLOQUIUM

FALL 2012

Formulation of Conservation Laws

Dr. Robert Acar
UPR – Mayaguez

November 8th, 2012

ABSTRACT

Conservation laws are the equations which express that the rate of change of an extensive quantity in a bounded region of a continuous body (mass, momentum, energy) is balanced by its flux across the boundary. Examples arise from acoustics, gas dynamics, and models of traffic flow. The equations are of first order, are nonlinear, and their solution over a large interval of time typically involves the formation of shocks and discontinuities. We will provide an introduction to the mathematical methods involved, and to different concepts of solution.

Monzón Building, Room 201, 10:30 AM
Refreshments will be served
15 minutes before the colloquium, M203

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