

MATHEMATICS DEPARTMENT
North Carolina State University

DIFFERENTIAL EQUATIONS SEMINAR

Wednesday, April 20, 2005
2:35 p.m. 330 Harrelson Hall

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Uniform BV estimates for damped p-system

In contrast to the success in nonlinear hyperbolic conservation laws, BV theory for nonlinear hyperbolic balance laws is widely open. Previous results require special structure of nonlinearity or strong dissipation from source terms. However, most physical systems have not yet been included in the existing results. Damped p-system is a simplest example where BV estimates are not available for generic small BV data. Based on some simple observations, we are able to solve this problem recently. This is a joint work with Constantine Dafermos.

Graduate students are invited to attend.

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