70th Midwest PDE Seminar Program, November 3-4, 2012

Department of Mathematical Sciences, University of Memphis

Saturday, November 3, 2012

8:00-9:00am, registration, tea and coffee at Dunn Hall 336 (Common Room)

Session I, Dunn Hall 233, 9:00-12:00pm. Chair: Hongqiu Chen

9:00-9:10am, John Haddock, Welcoming Remarks

9:10-10:00am, Christof Sparber, University of Illinois at Chicago, "High frequency interactions in nonlinear Schrödinger equations and applications"

10-10:50am, Ohannes Karakashian, University of Tennessee, "A posteriori error estimates for discontinuous Galerkin Methods for a class of nonlinear dispersive equations"

10:50-11:10am, Tea and Coffee Break

11:10-12:00pm, Susan Friedlander, University of Southern California, "The Importance Of Being Even"

12:00-1:30pm, Lunch Break

Session II, Dunn Hall 233, 1:30-3:10pm. Chair: Jerry Goldstein

1:30-2:20pm, Paul Werbos, National Science Foundation, "Core Open Challenges On the Existence of "Solitons" in 3+1 Dimensions"

2:20-3:10pm, John Perdew, Tulane University, "Everything You Always Wanted to Know about the van der Waals Interaction (But Were Afraid to Ask)"

3:10-3:30pm, Tea and coffee break

Session III, Dunn Hall 233, 3:30-4:50pm. Chair: George Anastassiou

3:30-3:50pm, Hassan Fathallah, University of Alabama at Birmingham, "Results on a Multilayer Model for Malignant Brain Tumors"

3:50-4:10pm Boris Belinskiy, "On Controllability of a Linear Elastic String and Beam with Memory"

4:10-4:30pm Abdul Khaliq, Middle Tennessee State University, "An Efficient exponential time differencing method for the system of non-linear Schrödinger equations"

4:30-4:50pm, Radu Cascaval, University of Colorado at Colorado Spring "Controllability in Spatial Networks"

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6:30pm, Memphis BBQ Dinner at

200 Wagner Place (Party Room)
Memphis, TN 38103.

After dinner, Jeff Lewis will sketch the long history of
Midwest PDE Seminars which commenced in 1977

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Sunday, November 4, 2012

8:00-8:20am, tea and coffee at Dunn Hall 336 (Common Room)

Session IV, Dunn Hall 351, 8:20-9:00am. Chair: David Dwiggins

8:20-8:40am Dionyssis Mantzavinos, Notre Dame University, "Boundary value problems for evolution PDEs: a unified approach."

8:40-9:00am, Naian Liao , Vanderbilt University, On the local behavior of a logarithmically singular equation

9:00-9:20am, John Holmes, Notre Dame University "Continuity of the Data to Solution Map for the Novikov Equation in Sobolev Spaces

Session V, Dunn Hall 233, 8:20-9:00am. Chair: John Haddock

8:20-8:40am, Ryan Thompson, Notre Dame University, "Nonuniform Dependence of the two-component Camassa-Holm system"

8:40-9:00am Ali Akgul, Dicle University, Turkey, "A Novel Method for Solving KdV Equation based on Reproducing Kernel Hilbert Space Method"

9:00-9:20am, Mark Allan, Purdue University, "The Two-Phase Thin Obstacle Problem"

Session VI, Dunn Hall 351, 9:20-12:10pm. Chair: Gisele Goldstein

9:20-10:10am, Fritz Gesztesy, University of Missouri, "Positivity Preserving Operators and Heat Kernel and Green's Function Bounds for Second Order Elliptic Operators with Robin-type Boundary Conditions"

10:10-10:30am, tea and coffee break at Dunn Hall 336 (Common Room)

10:30-11:20am, Susanne Brenner, Louisiana State University, "Can We Trust Numerical Solutions of PDEs?"

11:20-12:10pm, Roger Temam, Indiana University, "About the well-posedness of the two dimensional inviscid linear and nonlinear shallow water equations"

Thank you all for coming and have a safe trip home!