Brown University
Providence, RI
May 12-14 2011

# Conference on Hyperbolic Conservation Laws and Continuum Mechanics
**In Honor of Constantine Dafermos' 70th Birthday**

Schedule

Barus & Holley, Room 190

## Conference on Hyperbolic Conservation Laws and Continuum Mechanics
## Brown University
## May 12-14 2011

### Thursday – May 12, 2011
### Barus & Holley, Room 190

**9:00 – 9:50**        **Marshall Slemrod - University of Wisconsin-Madison**
**Entropy and Isometric Embedding**

**10:00-10:50**        **Konstantina Trivisa- University of Maryland**
**Dissipation, Diffusion & Entropy in the Balance Laws of Continuum Physics**

**11:00-11:30**        **Break**

**11:30-12:20**        **Gui-Qiang Chen- University of Oxford**
**Multidimensional Discontinuities and Free Boundary Problems in Hyperbolic Conservation Laws**

**12:30-2:00**        **Lunch**

**2:00-2:50**        **Tai-Ping Liu- Academia Sinica**
**Conservation Laws with Physical Viscosity**

**3:00-3:50**        **Stefano Bianchini – SISSA**
**SBV Regularity for General Hyperbolic System of Conservation Laws**

**4:00-4:30**        **Break**

**4:30-5:20**        **Stuart Antman- University of Maryland**
**Quasilinear Systems of Visco-Elasticity**

**5:30 – 6:20**        **Camillo De Lellis – University of Zurich**
**Oscillations and Admissible Solutions of Hyperbolic Systems I Conservation Laws**

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| **9:00 – 9:50** | **Andrew Majda – Courant Institute** <br> **Mathematical Strategies for Real Time Filtering of Turbulence Dynamical Systems** |
| **10:00-10:50** | **Denis Serre – ENS de Lyon** <br> **The Numerical Measure of a Complex Matrix. Lacunas of Hyperbolic Differential Operators** |
| **11:00-11:30** | **Break** |
| **11:30-12:20** | **Benoit Perthame – University Pierre et Marie Curie** <br> **Darwinian Evolution and the constrained Hamillton-Jacobi Equation** |
| **12:30-2:00** | **Lunch** |
| **2:00-2:50** | **Panagiotis Souganidis – University of Texas at Austin** <br> **Scalar Conservation Laws with "Bad" Time Dependence** |
| **3:00-3:50** | **Claude Bardos – University of Paris Diderot** <br> **About Incompressible Euler Limit of Solutions of the Navier-Stokes and Boltzmann Equation of Boundary Effects** |
| **4:00-4:30** | **Break** |
| **4:30-5:20** | **Barbara Keyfitz –Ohio State** <br> **A New Look at Singular Shocks** |
| **6:00** | **Banquet – Brown Faculty Club – One Magee Street** <br> **6:00pm-6:45pm Reception** <br> **6:45pm-7:45pm Buffet** <br> **7:45pm-8:45pm Speaking Program** |

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**9:00 – 9:50**      **Alberto Bressan – Penn State**
**Non-classical Control Problems and Stackelberg Feedback Equilibria**


**10:00-10:50**      **Rustum Choksi – McGill University**
**Asymptotic Regions and Global Minimization for a Variational Problem
with Long-Range Interactions**


**11:00-11:30**      **Break**

**11:30-12:20**      **Tommaso Ruggeri – University of Bologna**
**Can Constitutive Relations be Represented by Non-local Equations?**

**12:30-2:00**      **Lunch**

**2:00-2:50**      **Shih-Hsien Yu – University of Singapore**
**Construction of Green's Functions for the Boltzmann Equations**

**3:00-3:50**      **Hermano Frid – IMPA,  Brazil**
**Remarks on the Theory of the (Extended) Divergence-measure Fields**

**4:00-4:30**      **Break**

**4:30-5:20**      **Athanasios Tzavaras – University of Crete**
**On the Structure and Properties of the Equations of Nonlinear Elasticity**