

**23<sup>RD</sup> MIDWEST  
PARTIAL DIFFERENTIAL EQUATIONS  
SEMINAR**

**Room 165 Electrical Engineering Building**

**Saturday, April 16**

- 9:30      Coffee and Donuts
- 10:00     E. HARABETIAN, University of Michigan  
*A Cauchy-Kovalevsky theorem for hyperbolic systems of conservation laws with piecewise analytic initial data*
- 11:15     J. ESCOBAR, University of Chicago  
*The Yamabe problem on manifolds with boundary*
- Lunch
- 2:15      D. CHRISTODOULU, Courant Institute  
*Some mathematical problems in general relativity*
- 3:30      L. SIMON, Stanford University  
*Perturbing away singularities of harmonic maps*
- 4:40      R. KOHN, Courant Institute  
*Motion by mean curvature, parabolic harmonic maps and singular perturbations of evolution partial differential equations*

**Sunday, April 17**

- 8:30      Coffee and Donuts
- 9:00      R. MELROSE, Massachusetts Inst. of Technology  
*Shrinking tubes, quantization and blowing-up*
- 10:15     M. SLEMROD, University of Wisconsin  
*Riemann problem for the van der Waals fluid*
- 11:25     L. TARTAR, Carnegie Mellon University  
*The homogenization point of view in partial differential equations*

Organizers: Patricio Aviles & Robert Muncaster, Department of Mathematics

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