Program: The Second Ohio River Analysis Meeting
The University of Kentucky, Lexington, Kentucky

Saturday Morning April 21 2012 (Location: BE/Room 313)

- 8:15 am-8:45 am Registration

(Chair: Peter Hislop)

- 8:45 am-9:35 am **Balint Virag** (University of Toronto) *Limits of random Schroedinger operators and random matrices*
- 9:40 am-10:30 am **Patti Bauman** (Purdue University) *Analysis of Equilibria with One-Half Degree Defects for the Landau-de Gennes Model of Nematic Liquid Crystals*
- 10:35 am-11:00 am Coffer Break

(Chair: John Lewis)

- 11:00 am-11:50 am **Alice Chang** (Princeton University) *Higher order isoperimetric inequalities –an approach via method of optimal transport*
- 12:00 noon-2:00 pm Lunch Break

Saturday Afternoon April 21 2012
(There will be two parallel sessions of contributed talks from 2:00 pm to 6:00 pm)

Session I (Location: BE/Room 313)

(Chair: Changyou Wang)

- 2:00 pm-2:25 pm **Gregory Drugan** (University of Washington, Seattle) *Self-Shrinking Solutions of Mean Curvature Flow with Rotational Symmetry*
- 2:30 pm-2:55 pm **Tuoc Phan** (University of Tennessee, Knoxville) *Navier-Stokes equations in critical spaces: existence and stability of steady state solutions*
- 3:00 pm-3:25 pm **Xiang Xu** (Carnegie Mellon University) *Analysis of a hydrodynamic system modeling vesicle and fluid interactions*
- 3:30 pm- 3:55 pm **Tao Huang** (University of Kentucky) *Some new results on the uniqueness of heat flow of harmonic maps and nematic liquid crystal flows*
- 3:55 pm-4:20 pm Coffee Break

(Chair: Patti Bauman)

- 4:20 pm-4:45 pm **Lei Z. Cheng** (Purdue University) *Chevron Structures in Liquid Crystals Films*
- 4:50 pm-5:15 pm **Sean Colbert** (Purdue University) *Analysis of a Ginzburg-Landau Type Energy Model for Smectic C* Liquid Crystals with Defects*

- 5:20 pm-5:45 pm **Ko-Shin Chen** (Indiana University) *Ginzburg-Landau vortices on 2-D surfaces*
- 5:50 pm-6:15 pm **Hung Tran** (University of California, Berkeley) *Partial regularity results for a variational problem for nematic liquid crystal*

Session II (Location: BE/Room 315)

(Chair: Leonid Slavin)

- 2:00 pm-2:25 pm **Francis Chung** (University of Chicago) *A Carleman Estimate for a Partial Data Inverse Problem*
- 2:30 pm-2:55 pm **Murat Akman** (University of Kentucky) *On the logarithm of the minimizing integrand for certain variational problems in two dimensions*
- 3:00 pm-3:25 pm **Leonardo Marazzi** (University of Kentucky) *Generic properties of eigenvalues and resonances for compact metrics on surfaces with cusps*
- 3:30 pm-3:55 pm **Zhuomin Liu** (University of Pittsburgh) *The Liouville Theorem on Conformal Mappings*
- 3:55 pm-4:20 pm Coffee Break

(Chair: Russell Brown)

- 4:20 pm-4:45 pm **Ruipeng Shen** (University of Chicago) *Global Well-posedness and Scattering of Defocusing Energy Subcritical Nonlinear Wave Equation in dimension 3 with radial data*
- 4:50 pm-5:15 pm **Robert Buckingham** (University of Cincinnati) *Asymptotics of rational Painleve II solutions*
- 5:20 pm-5:45 pm **Larry Harris** (University of Kentucky) *Markovs Theorem for Derivatives of Multivariate Polynomials*
- 5:50 pm-6:15 pm **Andrew Lorent** (University of Cincinnati) *A brief survey of the Aviles Giga functional*

Saturday Evening April 21 2012

- 6:30 pm-8:30 pm Conference Buffet Banquet, University Inn Meeting Room.
- 8:30 pm-10:30 pm Reception, Professor John Lewis' house (1050 Fontaine Road, Lexington, KY 40502).

Sunday Morning April 22 2012 (Location: BE/Room 313)

(Chair: Zhongwei Shen)

- 8:30 am-9:20 am **Fanghua Lin** (CIMS, New York University) *Elliptic Equations with Periodic Coefficients and Theory of Homogenization*
- 9:25 am-10:15 am **Michael Frazier** (University of Tennessee, Knoxville) *Global Estimates for Kernels of Neumann Series and Green's Functions of Schrödinger Operators*
- 10:20 am-10:50 am Coffee Break

(Chair: Michael Goldberg)

- 10:50 am-11:40 am **Yu Yuan** (University of Washington, Seattle) *Lagrangian mean curvature flow for entire Lipschitz graphs*
- 11:45 am-12:10 am **Hi Jun Choe** (Yonsei University, South Korea) *Maximum modulus estimate for the solution of the Navier-Stokes equations*