THE 5TH SYMPOSIUM ON ANALYSIS & PDEs

PURDUE UNIVERSITY, MAY 20–23, 2012

SCHEDULE

Location: All lectures are in MATH 175, Coffee Breaks: Math Library lounge.

Sunday, May 20. *REVISED*

8:30– 8:50	Refreshments
8:50– 9:00	Opening Remarks
9:00– 10:00	**Alice Chang**, Princeton University
	Nonlinear PDEs in the study of conformal invariants – I
10:00– 11:00	**YanYan Li**, Rutgers University
	Some analytic aspects of conformally invariant fully nonlinear equations
11:00– 11:30	Coffee Break
11:30– 12:30	**Natasa Sesum**, Rutgers University
	Ancient solutions to geometric flows
12:30– 2:30	Lunch Break
2:30– 3:30	**Jean Michel Roquejoffre**, Universite de Toulouse
	Travelling graphs for the forced mean curvature motion in arbitrary space dimensions
3:30– 3:50	**Phuc Nguyen**, Louisiana State University
	Stationary Navier-Stokes equations with critically singular external forces: existence and stability results
4:00– 4:30	Coffee Break
4:30– 4:50	**Marian Bocea**, Loyola University Chicago
	Models for growth of heterogeneous sandpiles via Mosco convergence
4:50– 5:10	**Tao Huang**, University of Kentucky
	On uniqueness of heat flow of harmonic maps and hydrodynamic flow of nematic liquid crystals

Monday, May 21.

8:30– 9:00	Refreshments
9:00– 10:00	**Alice Chang**, Princeton University *Nonlinear PDEs in the study of conformal invariants - II*
10:00– 11:00	**Yu Yuan**, University of Washington *Hessian estimates for special Lagrangian equations with critical and supercritical phases*
11:00– 11:30	Coffee Break
11:30– 12:30	**Matthew Gursky**, University of Notre Dame *Regularized determinants and conformally invariant operators*
12:30– 2:00	Lunch Break
2:00– 3:00	**Luis Caffarelli**, University of Texas at Austin *Fractional obstacle problem: optimal regularity - I*
3:00– 4:00	**Ovidiu Savin**, Columbia University *Regularity of non-local minimal cones in dimension 2*
4:00– 4:30	Coffee Break
4:30– 4:50	**Michael Goldman**, Ecole Polytechnique/Carnegie Mellon *Differentiability and strict convexity of the stable norm*
4:50– 5:10	**Jiuyi Zhu**, Wayne State University *Liouville-type theorems and decay estimates for solutions to higher order elliptic equations*

BANQUET	*West Faculty Lounge of the Purdue Memorial Union*
6:30	Reception (Cash Bar)
7:00	Dinner

Tuesday, May 22.

8:30– 9:00	Refreshments
9:00– 10:00	**Alice Chang**, Princeton University *Nonlinear PDEs in the study of conformal invariants - III*
10:00– 11:00	**Paul Yang**, Princeton University *Conformally covariant equations in 3-D CR geometry*

11:00– 11:30	Coffee Break
11:30– 12:30	**Giovanna Citti**, Universita di Bologna
	Heat kernels and mean curvature flow in Lie groups with subelliptic metric
12:30– 2:00	Lunch Break
2:00– 3:00	**Luis Caffarelli**, University of Texas at Austin
	Fractional obstacle problem: optimal regularity - II
3:00– 4:00	**Dejan Slepcev**, Carnegie Mellon University
	A nonlocal functional from data analysis
4:00– 4:30	Coffee Break
4:30– 4:50	**Dake Wang**, University of Washington
	Singular solutions to special Lagrangian equations with subcritical phases and minimal surface systems
4:50– 5:10	**Marie Frentz**, Umeå University
	The obstacle problem for parabolic non-divergence form operators of Hormander type
5:10– 5:30	**Mark Allen**, Purdue University
	The two-phase thin obstacle problem

Wednesday, May 23.

8:30– 9:00	Refreshments
9:00– 10:00	**Luis Caffarelli**, University of Texas at Austin
	Fractional obstacle problem: optimal regularity - III
10:00– 11:00	**Lenya Ryzhik**, Stanford University
	On the Bramson logarithmic correction for KPP fronts
11:00– 11:30	Coffee Break
11:30– 12:30	**Alexis Vasseur**, University of Texas at Austin
	Regularity theory for non-linear integral differential operators