Nonlinear Problems for Δ_p and Δ

Linköping, 10-14 August 2009

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Monday

8.30 Registration
9.30 Opening by Dean **Helen Dannetun**
9.40–10.25 **John Toland**, Bernoulli free-boundaries (I)
coffee
11.00–11.45 **Juha Kinnunen**, Superparabolic functions (I)
lunch *at Kårallen*
13.15–14.00 **Michael Crandall**, Absolutely minimizing Lipschitz extensions, the infinity-Laplace equation, and all that (I)
14.15–15.05 **Kaj Nyström**, Regularity and free boundary regularity for the p-Laplace operator in Reifenberg flat and Ahlfors regular domains
coffee
15.35–16.25 **Robert Jensen**, Curvature flow connections with the Δ_∞
16.35–17.00 *Nobel*: **Marian Bocea**, From ∞-harmonic to ∞-analytic: Aronsson equations suggested by power-law resistivity
Glashuset: **Harri Varpanen**, On Wolff's anti-Fatou theorem for p-harmonic functions

Tuesday

9.00–9.45 **Olli Martio**, Quasiminimizers – definitions, constructions and capacity estimates (I)
coffee
10.15–11.05 **Mark Groves**, Existence and stability of fully localised three-dimensional gravity-capillary solitary waves
11.20–12.05 **Michael Crandall**, Absolutely minimizing Lipschitz extensions, the infinity-Laplace equation, and all that (II)
lunch *at Kårallen*
13.30–14.20 **Peter Lindqvist**, A curious equation involving the infinity-Laplacian
14.30–14.55 **John Lewis**, Boundary integral operators and boundary value problems for Laplace's equation
coffee
15.25–15.50 *Nobel*: **Teemu Lukkari**, Wolff potential estimates for elliptic equations with nonstandard growth
Glashuset: **Joachim Naumann**, Variational methods in the theory of perfectly plastic fluids
16.00–16.25 *Nobel*: **Robert Jensen**, Game solutions of non-linear partial differential equations
Glashuset: **Erik Lindgren**, The two-phase membrane problem with coefficients below the Lipschitz threshold
16.35–17.00 *Nobel*: **Niklas Lundström**, The boundary Harnack inequality for solutions to equations of Aronsson type in the Plane
Glashuset: **George Baravdish/Olof Svensson**, Image reconstruction with p-parabolic equations
18.30 **Dinner** *at Mjellerumsgården*

Wednesday

8.45–9.30 **John Toland**, Bernoulli free-boundaries (II)

coffee

10.00–10.45 **Juha Kinnunen**, Superparabolic functions (II)

11.00–11.45 **Olli Martio**, Quasiminimizers – definitions, constructions and capacity estimates (II)

lunch *at Kårallen*

13.00 **Excursion**. Bus in front of Kårallen leaves at 13.00 **sharp**. Return time approximately 17.00.

Thursday

9.00–9.45 **Michael Crandall**, Absolutely minimizing Lipschitz extensions, the infinity-Laplace equation, and all that (III)

coffee

10.15–11.05 **Xiao Zhong**, Regularity of p-harmonic functions in the Heisenberg group

11.20–12.05 **John Toland**, Bernoulli free-boundaries (III)

lunch *at Mjellerumsgården*

13.45–14.35 **Nikolay Kuznetsov**, The Benjamin–Lighthill conjecture for near-critical values of Bernoulli's constant

14.45–15.10 *Nobel*: **Goro Akagi**, Asymptotic behavior of viscosity solutions for ∞-Laplace parabolic equations
Glashuset: **Zohra Farnana**, The double obstacle problem on metric spaces

coffee

15.40–16.05 *Nobel*: **Tomasz Adamowicz**, The Loewner type estimates for p-modulus of curve families beyond the natural setting $p = n$
Glashuset: **Mohamed Seddeek**, Transient thermal radiative convection flow of a heat transfer past a continuously moving porous boundary

16.15–16.40 *Nobel*: **Agnieszka Kałamajska**, Nonexistence results for A-harmonic problems
Glashuset: **Gunnar Aronsson**, Boltyanski's variational technique, Pontryagin's principle and minimax on the line

16.50–17.15 *Nobel*: **Michela Eleuteri**, p-harmonic functions and obstacle problems: sharp regularity results and generalization to the variable exponent setting
Glashuset: **Elena Sviridova**, The asymptotic behavior as $t \to \infty$ of the components of solution of the Cauchy problem describing small fluctuations of stratified fluid rotation in the semi-space

18.30 **Dinner** *at Linköping Golf Restaurant P2*

Friday

9.00–9.50	**Walter Craig**, Normal forms for surface water waves
coffee	
10.20–11.05	**Juha Kinnunen**, Superparabolic functions (III)
11.20–12.10	**Ugo Gianazza**, Continuity of the saturation in the flow of two immiscible fluids in a porous medium
lunch	*at Mjellerumsgården*
13.45–14.30	**Olli Martio**, Quasiminimizers – definitions, constructions and capacity estimates (III)
coffee	
15.00–15.25	*Nobel*: **Benny Avelin**, Optimal doubling, Reifenberg flatness and operators of p-Laplace type *Glashuset*: **Shapour Heidarkhani Gorazan**, Existence of three solutions to a class of Neumann doubly eigenvalue elliptic systems driven by a $(p_1, ..., p_n)$-Laplacian
15.35–16.00	*Nobel*: **John Fabricius**, Δ_p on the torus: An application to multiscale convergence