

Workshop III: Non-Smooth Geometry

Monday April 29, 2013

- 8:30–9:25 *Check-In/Light Breakfast (Hosted by IPAM)*
- 9:25–9:30 *Welcome and Opening Remarks*
- 9:30–10:20 **Peter Haissinsky** (Université de Toulouse III (Paul Sabatier))
Hyperbolic groups with planar boundaries
- 10:30–11:00 *Break*
- 11:00–11:50 **Enrico Le Donne** (University of Jyväskylä)
Regularity of isometries of subRiemannian manifolds
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Robert Young** (University of Toronto)
Lipschitz spheres in the Heisenberg groups
- 3:00–3:30 *Break*
- 3:30–4:20 **Volodymyr Nekrashevych** (Texas A&M University - College Station)
Hyperbolic groupoids, visual metric, and critical exponents
- 4:30–6:00 *Reception (Location: IPAM Lobby)*

Tuesday April 30, 2013

- 8:30–9:30 *Continental Breakfast*
- 9:30–10:20 **Olga Maleva** (University of Birmingham)
How small a universal differentiability set can be?
- 10:30–11:00 *Break*
- 11:00–11:50 **Davide Vittone** (Università di Padova)
Some new results on sub-Riemannian geodesics in stratified groups
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Alexander Teplyaev** (University of Connecticut)
Spectral and vector analysis on fractafolds
- 3:00–3:30 *Break*
- 3:30–4:20 **Giovanni Alberti** (Università di Pisa)
Differentiability of Lipschitz functions with respect to singular measures



Wednesday May 1, 2013

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **Zoltan Balogh** (Universität Bern)
Hausdorff dimension distortion by Sobolev map in foliated spaces
- 10:00–10:15 *Break*
- 10:15–11:05 **Nicola Garofalo** (Università degli Studi di Padova)
Curvature-dimension and Li-Yau inequalities in sub-Riemannian geometry
- 11:15–11:30 *Break*
- 11:30–12:20 **Marc Bourdon** (Université de Lille I (Sciences et Techniques de Lille Flandres Artois))
Some remarks on ℓ_p -cohomology in degree 2

Thursday May 2, 2013

- 8:30–9:30 *Continental Breakfast*
- 9:30–10:20 **Bernd Kirchheim** (Universität Leipzig)
Hausdorff dimension and higher order Sobolev maps
- 10:30–11:00 *Break*
- 11:00–11:50 **Daniel Meyer** (Jacobs University Bremen)
Quasisymmetric uniformization
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Urs Lang** (ETH Zürich)
Weak notions of global nonpositive curvature
- 3:00–3:30 *Break*
- 3:30–4:20 **John Mackay** (University of Oxford)
Conformal dimension and small cancellation groups

Friday May 3, 2013

- 8:30–9:30 *Continental Breakfast*
- 9:30–10:20 **Valentino Magnani** (Università di Pisa)
Exterior differentiation through blow-up and some applications in sub-Riemannian Geometry
- 10:30–11:00 *Break*

(Friday schedule continued on next page)

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- 11:00–11:50 **David Bate** (University of Warwick)
Structure of measures in Lipschitz differentiability spaces
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Severine Rigot** (Université de Nice Sophia Antipolis)
Isodiametric problem in Carnot groups
- 3:00–3:30 *Break*
- 3:30–4:20 **Jun Kigami** (Kyoto University)
Partition, volume doubling property and quasisymmetry

