

ERC Workshop on Geometric Measure Theory, Analysis in Metric Spaces and Real Analysis

Centro De Giorgi, Scuola Normale Superiore

Pisa, October 7-11, 2013

Schedule

Monday 7

8.30-8.55. Registration.

8.55-9.00. Welcome address.

9.00-9.50. **William K. Allard** (Duke University). *Some useful techniques for dealing with multiple valued functions.*

10.00-10.50. **Ulrich Menne** (Potsdam University). *Connectedness properties of varifolds.*

10.50-11.30. Coffee break.

11.30-12.20. **Vladimir Bogachev** (Moscow State University). *Extensions of Sobolev functions and BV functions in infinite dimensions.*

Lunch.

14.30-15.20. **Mircea Petrache** (ETH, Zurich). *Weak curvatures and the Yang-Mills Plateau problem.*

15.30-16.20. **Silvana Delladio** (Università di Trento). *Superdensity and infinitesimal Euclideanity of sets of finite perimeter.*

16.20-16.50. Coffee break.

16.50-17.40. **Guido De Philippis** (Bonn University). *The sharp quantitative Faber-Krahn inequality.*

17.50-18.40. **Xiangyu Liang** (Warwick University). *Minimal sets and classification of singularities.*

Tuesday 8

8.30-9.20. **Tristan Rivière (ETH, Zurich)** *Some aspects of the analysis of Gauge theory in supercritical dimensions.*

9.30-10.20. **Zoltan Buczolich (Eötvös Loránd University)**. *Measures and functions with prescribed homogeneous multifractal spectrum.*

10.20-10.40. Coffee break.

10.40-11.30. **Guy David (Université de Paris Sud)**. *A variant of the Alt-Caffarelli-Friedman problem for the localization of eigenfunctions.*

11.40-12.30. **Pertti Mattila (University of Helsinki)**. *Singular integrals, rectifiability and fractality.*

Lunch.

14.30-15.00. **Philippe Logaritsch (Max Planck Institut, Leipzig)**. *Sobolev functions with values in a metric space.*

15.05-15.35. **Francesco Ghiraldin (Zurich University)**. *Flat currents in metric spaces and variational applications.*

15.40-16.10. **Sean Li (Chicago University)**. *Coarse differentiation of Lipschitz functions.*

16.10-16.40. Coffee break.

16.40-17.10. **Andrea Marchese (MPI, Leipzig)**. *Differentiability of Lipschitz functions with respect to measures.*

17.15-17.45. **Luca Spolaor (Zurich University)**. *Uniqueness of the tangent cone to 2-d almost area minimizing currents.*

17.50-18.20. **Andrea Pinamonti (Università di Padova)**. *BV Minimizers of the area functional in the Heisenberg group under the bounded slope condition.*

Wednesday 9

9.00-9.50. **Olga Maleva (University of Birmingham).** *Null universal differentiability sets.*

10.00-10.50. **András Mathé (University of Warwick).** *Disintegrating measures onto Lipschitz curves and surfaces.*

10.50-11.30. Coffee break.

11.30-12.20. **Thomas Schmidt (Erlangen University).** *Extremality relations for BV-minimizers.*

Lunch.

Free afternoon

Thursday 10

9.00-9.50. **Jan Kolář** (Czech Academy of Sciences). *A stationary varifold with non-unique tangent.*

10.00-10.50. **Yoshihiro Tonegawa** (Hokkaido University). *Existence and regularity of mean curvature flow with transport term.*

10.50-11.30. Coffee break.

11.30-12.20. **Costante Bellettini** (Princeton University). *Tangent cones to integral and normal calibrated currents: different behaviour.*

Lunch.

14.30-15.20. **Gareth Speight** (Scuola Normale Superiore). *Porosity and differentiability.*

15.30-16.20. **Bernd Kirchheim** (Leipzig University). *Contractions and isometries.*

16.20-16.50. Coffee break.

16.50-17.40. **Alexander Kolesnikov** (Higher School of Economics, Moscow). *Riemannian approach to convexity inequalities.*

17.50-18.40. **Antoine Lemenant** (Université Paris Diderot). *Regularity of one-dimensional almost minimal sets in Banach spaces.*

Friday 11

9.00-9.50. **Emanuele Paolini** (**Università di Firenze**). *Decomposition of one-dimensional currents.*

10.00-10.50. **Neshan Wickramasekera** (**University of Cambridge**). *Structure of branch sets of minimal submanifolds and multi-valued harmonic functions.*

10.50-11.30. Coffee break.

11.30-12.20. **Tatiana Toro** (**University of Washington**). *Regularity for almost minimizers with free boundary.*