

GEOMETRIC ASPECTS OF PDE'S AND FUNCTIONAL INEQUALITIES

Cortona (Arezzo, Italy) April 28 - 30 2016

THURSDAY 28TH

14:00-14:30 Registration

14:30-15:10 Hynek Kovařík

Optimizing the first eigenvalue of some quasilinear operators with respect to boundary conditions

15:15-15:55 Yannick Privat

Optimal shape and location of actuators or sensors in PDE models

16:00-16:30 Coffee break

16:30-17:10 Enea Parini

On a shape functional related to Cheeger's inequality

17:15-17:55 Gisella Croce

Symmetry and asymmetry of minimizers of a class of noncoercive functionals

FRIDAY 29TH - MORNING SESSION

9:30-10:10 Virginia Agostiniani

The electrostatic potential: monotonicity formulas and geometric inequalities

10:15-10:55 Giuseppina di Blasio

Anisotropic Hardy inequalities

11:00-11:30 Coffee break

11:30-12:10 Chao Xia

Inverse anisotropic curvature flow and Minkowski's inequality

12:15-13:00 Michele Marini

Sharp estimates for the anisotropic torsional rigidity and the anisotropic principal frequency of a convex domain

13:00-14:30 Lunch

FRIDAY 29TH - AFTERNOON SESSION

14:30-15:10 Lenka Slavíková

Higher-order Sobolev embeddings and isoperimetric inequalities

15:15-15:55 Berardo Ruffini

Compact Sobolev embedding and torsion function

16:00-17:00 Coffee break + Poster session

17:00-17:40 Jimmy Lamboley

New results about shape derivatives and convexity constraints

17:45-18:25 Dario Mazzoleni

Geometric properties of optimal sets for some spectral optimization problems

20:30 Social dinner

SATURDAY 30TH

9:30-10:10 James Kennedy

Eigenvalue estimates for quantum graphs

10:15-10:55 Norisuke Ioku

Existence and nonexistence of solutions for a heat equation with a superlinear source term

11:00-11:30 Coffee break

11:30-12:10 Stefania Patrizi TBA

12:15-13:00 Nicolas Popoff

Ground state energy of the Robin Laplacian

13:00-14:00 Light lunch