

# Fifth International Workshop CONVEX GEOMETRY - ANALYTIC ASPECTS

Cortona, June 12-18, 2011



#### **MONDAY, JUNE 13**

8.45 - 9.45 Registration

9.45 - 10.00 Welcome address

10.00 – 10.55 S. Bobkov Information-theoretic extensions in High-dimensional Convex Geometry Coffee break 11.20 – 12.15 M. Henk *Roots of Steiner* polvnomials 12.25 – 12.55 R.J. Gardner Operations between sets or functions Lunch 15.00 – 15.20 D. Hug Random mosaics in high dimensions 15.30 – 15.50 A. Koldobsky Stability in volume comparison problems 16.00 – 16.20 V. Yaskin A problem of Klee on inner section functions of convex bodies Coffee break 16.50 – 17.10 G. Averkov Analytic and discrete aspects of the covariogram problem 17.20 – 17.40 M.A. Hernandez Cifre Successive radii of convex bodies

## **TUESDAY, JUNE 14**

9.00 – 9.55 X. Ma The Gaussian curvature estimates for the convex level sets of harmonic function 10.10 – 10.30 P. Gruber Normal Bundles of Convex Bodies Coffee break 11.00 – 11.55 F. Schuster The Petty projection inequality and beyond

12.10 – 12.30 V. Oliker Convexity and mass transport methods for solving problems in optics 12.40 – 13.00 W. Weil Mean section bodies Lunch 15.00 – 15.20 D. Yang Affine and Orlicz information theory 15.30 – 15.50 M. Meyer The convex intersection body of a convex body 16.00 – 16.20 A. Pratelli Solution to the Auerbach Conjecture Coffee break 16.50 - 17.10 E. Saorin-Gomez A characterization of some mixed volumes via the Brunn-Minkowski inequality 17.20 – 17.40 B. Slomka Order-isomorphisms for cones and ellipsoids 17.50 – 18.10 D. Florentin Order isomorphisms in windows

## WEDNESDAY, JUNE 15

9.00 – 9.55 P. Gritzmann On Gravity Bodies and Power Diagrams 10.10 – 10.40 I. Barany Jarnik's convex lattice n-gon for non-symmetric norms Coffee break 11.10 – 11.40 V. Milman Some new results on "asymptotic" convexity 11.50 – 12.20 N. Tomczak-Jaegermann Geometry of log-concave Ensembles of random matrices 12.30 – 12.50 E.M. Werner How often is a random quantum state k-entangled?

#### **THURSDAY, JUNE 16**

9.00 – 9.55 S. Artstein-Avidan On the two duality transforms for geometric convex functions 10.10 – 10.30 A. Giannopoulos On the distribution of the  $\psi_2$ -norm of linear functionals on isotropic convex bodies

#### Coffee break

11.00 – 11.55 G. Bianchi Some known results and open problems related to the covariogram 12.10 – 12.30 D. Klain Some convergence theorems for Steiner symmetrization 12.40 - 13.00 M. Ludwig Valuations on Function **Spaces** Lunch 15.00 – 15.20 C. Bianchini Polygonal solutions for a shape optimisation problem 15.30 – 15.50 C. Haberl The even Orlicz-Minkowski problem 16.00 – 16.20 C. Schuett Mahler's conjecture and curvature Coffee break 16.50 – 17.10 B.H. Vritsiou A measure of orthogonality on isotropic convex bodies 17.20 – 17.40 P. Dulio Reconstruction of twisted polytopes and applications

## FRIDAY, JUNE 17

9.00 – 9.55 D. Cordero-Erausquin Asymmetric covariance inequalities of Brascamp-Lieb type 10.10 – 10.30 P. Salani The Hot Spot of a Convex Set Coffee break

11.00 – 11.55 A. Zvavitch Intersection bodies and some generalizations of the Busemann's Theorem