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Collana	Fields Institute Communications, , 2194-1564 ; ; 68
Altri autori (Persone)	LudwigMonika
Disciplina	515.6
Soggetti	Functional analysis Probabilities Functions of real variables Operator theory Convex geometry Discrete geometry Topological groups Lie groups Functional Analysis Probability Theory Real Functions Operator Theory Convex and Discrete Geometry Topological Groups and Lie Groups
Lingua di pubblicazione	Inglese
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Nota di contenuto	Preface -- The Variance Conjecture on Some Polytopes (D. Alonso Gutierrez, J. Bastero) -- More Universal Minimal Flows of Groups of Automorphisms of Uncountable Structures (D. Bartosova) -- On the Lyapounov Exponents of Schrodinger Operators Associated with the Standard Map (J. Bourgain) -- Overgroups of the Automorphism Group of the Rado Graph (P. Cameron, C. Laflamme, M. Pouzet, S. Tarzi, R. Woodrow) -- On a Stability Property of the Generalized Spherical Radon

Transform (D. Faifman) -- Banach Representations and Affine Compactification of Dynamical Systems (E. Glasner, M. Megrelishvili) -- Flag Measures for Convex Bodies (D. Hug, I. Turk, W. Weil) -- Operator Functional Equations in Analysis (H. König, V. Milmann) -- A Remark on the External Non-Central Sections of the Unit Cube (J. Moody, C. Stone, D. Zach, A. Zvavitch) -- Universal Flows of Closed Subgroups of  $S$  and Relative Extreme Amenability (L. Nguyen Van The) -- Oscillation of Urysohn Type Spaces (N.W. Sauer) -- Euclidean Sections of Convex Bodies (G. Schechtman) -- Duality on Convex Sets in Generalized Regions (A. Segal, B.A. Slomka) -- On Polygons and Injective Mappings of the Plane (B.A. Slomka) -- Abstract Approach to Ramsey Theory and Ramsey Theorems for Finite Trees (S. Solecki) -- Some Affine Invariants Revisited (A. Stancu) -- On the Geometry of Log-Concave Probability Measures with Bounded Log-Sobolev Constant (P. Stavrakakis, P. Valettas) --  $f$ -Divergence for Convex Bodies (E.M. Werner).

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## Sommario/riassunto

Asymptotic Geometric Analysis is concerned with the geometric and linear properties of finite dimensional objects, normed spaces, and convex bodies, especially with the asymptotics of their various quantitative parameters as the dimension tends to infinity. The deep geometric, probabilistic, and combinatorial methods developed here are used outside the field in many areas of mathematics and mathematical sciences. The Fields Institute Thematic Program in the Fall of 2010 continued an established tradition of previous large-scale programs devoted to the same general research direction. The main directions of the program included:

- \* Asymptotic theory of convexity and normed spaces
- \* Concentration of measure and isoperimetric inequalities, optimal transportation approach
- \* Applications of the concept of concentration
- \* Connections with transformation groups and Ramsey theory
- \* Geometrization of probability
- \* Random matrices
- \* Connection with asymptotic combinatorics and complexity theory

These directions are represented in this volume and reflect the present state of this important area of research. It will be of benefit to researchers working in a wide range of mathematical sciences—in particular functional analysis, combinatorics, convex geometry, dynamical systems, operator algebras, and computer science.

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