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Nota di contenuto	Introduction -- PART I Research Articles. Marcus: Tudor Zamfirescu: from convex to magic -- Yuan: Acute Triangulations of Rectangles, with Angles Bounded Below -- Skupien: Multi-compositions in exponential counting of hypohamiltonian snarks -- Shabbir & T. Zamfirescu: Hamiltonicity in k-tree-Halin graphs -- Schneider: Reflections of planar convex bodies -- Rouyer: Steinhaus conditions for convex polyhedra -- Riviere: About the Hausdorff dimension of the set of endpoints of convex surfaces -- Prunescu: About a surprising computer program of Matthias Müller -- Oliveros, Martinez & Montejano: Extremal results on intersection graphs of boxes in R^d -- Massé, Euler & Lemarchand: On the connected spanning cubic subgraph problem -- Kincses: On the Helly dimension of Hanner polytopes -- Itoh & Ohtsuka: Classification of normal 2-polyhedra of

positive constant curvature -- Heppes & Jeronimo-Castro: T(4) families of-disjoint ovals -- Fruchard & Magazinov: Fair partitioning by straight lines -- Filip & Petrusel: Fixed point theorems for multivalued Zamfrescu operators in convex Kasahara spaces -- Et-Taoui: Complex conference matrices, complex Hadamard matrices and complex equiangular tight frames -- Chevallier, Fruchard & Vilcu: Envelopes of -sections -- Bokowski & al.: Selected open and solved problems in computational synthetic geometry -- Bau: Reductions of 3-connected quadrangulations of the sphere -- Barany & Por: Paths on the sphere without small angles -- PART II Open Problem Notes. Zamfirescu T.: Two problems on cages for discs -- Zamfirescu Carol T.: Seven problems on hypohamiltonian and almost hypohamiltonian graphs -- Vilcu & Zamfirescu: Six problems on the length of the cut locus -- Simoes-Pereira: Existence Problems for Matroidal Families -- Funar: Cubical Pachner moves -- Eckhoff: Problems in Discrete Geometry -- Chevallier & Fruchard: What is the minimal cardinal of a family which shatters all d-subsets of a finite set? -- Baskoro: Some open problems of Ramsey minimal graphs. .

Sommario/riassunto

This volume presents easy-to-understand yet surprising properties obtained using topological, geometric and graph theoretic tools in the areas covered by the Geometry Conference that took place in Mulhouse, France from September 7–11, 2014 in honour of Tudor Zamfirescu on the occasion of his 70th anniversary. The contributions address subjects in convexity and discrete geometry, in distance geometry or with geometrical flavor in combinatorics, graph theory or non-linear analysis. Written by top experts, these papers highlight the close connections between these fields, as well as ties to other domains of geometry and their reciprocal influence. They offer an overview on recent developments in geometry and its border with discrete mathematics, and provide answers to several open questions. The volume addresses a large audience in mathematics, including researchers and graduate students interested in geometry and geometrical problems.