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Nota di contenuto	Weak Minkowski spaces / Athanase Papadopoulos, Marc Troyanov -- From Funk to Hilbert geometry / Athanase Papadopoulos, Marc Troyanov -- Funk and Hilbert geometries from the Finslerian viewpoint / Marc Troyanov -- On the Hilbert geometry of convex polytopes / Constantin Vernicos -- The horofunction boundary and isometry group of the Hilbert geometry / Cormac Walsh -- Characterizations of hyperbolic geometry among Hilbert geometries / Ren Guo -- Around groups in Hilbert geometry / Ludovic Marquis -- The geodesic flow of Finsler and Hilbert geometries / Mickael Crampon -- Dynamics of Hilbert nonexpansive maps / Anders Karlsson -- Birkhoff's version of Hilbert's metric and its applications in analysis / Bas Lemmens, Roger D. Nussbaum -- Convex real projective structures and Hilbert metrics / In Kang Kim, Athanase Papadopoulos -- Weil-Petersson Funk metric on Teichmuller space / Hideki Miyachi, Ken'ichi Ohshika, Sumio Yamada -- Funk and Hilbert geometries in spaces of constant curvature / Athanase Papadopoulos, Sumio Yamada -- On the origin of Hilbert geometry / Marc Troyanov -- Hilbert's fourth problem / Athanase Papadopoulos -- Open problems.

Sommario/riassunto

This volume presents surveys, written by experts in the field, on various classical and the modern aspects of Hilbert geometry. They are assuming several points of view: Finsler geometry, calculus of variations, projective geometry, dynamical systems, and others. Some fruitful relations between Hilbert geometry and other subjects in mathematics are emphasized, including Teichmüller spaces, convexity theory, Perron-Frobenius theory, representation theory, partial differential equations, coarse geometry, ergodic theory, algebraic groups, Coxeter groups, geometric group theory, Lie groups and discrete group actions. The Handbook is addressed to both students who want to learn the theory and researchers working in the area.
