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Titolo	Geometry Through History : Euclidean, Hyperbolic, and Projective Geometries / / by Meighan I. Dillon
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Descrizione fisica	1 online resource (XII, 350 p. 233 illus. in color.)
Disciplina	519.009
Soggetti	Convex geometry Discrete geometry Mathematics History Geometry, Hyperbolic Geometry, Projective Convex and Discrete Geometry History of Mathematical Sciences Hyperbolic Geometry Projective Geometry
Lingua di pubblicazione	Inglese
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Nota di contenuto	Preface -- 1. The Elements of Euclid -- 2. Neutral Geometry -- 3. The Hyperbolic Plane -- 4. Hilbert's Grundlagen -- 5. More Euclidean Geometry -- 6. Models for the Hyperbolic Plane -- 7. Affine Geometry -- 8. An Introduction to Projective Geometry -- 9. Algebraic Curves -- 10. Rotations and Quaternions -- Index.
Sommario/riassunto	Presented as an engaging discourse, this textbook invites readers to delve into the historical origins and uses of geometry. The narrative traces the influence of Euclid's system of geometry, as developed in his classic text <i>The Elements</i> , through the Arabic period, the modern era in the West, and up to twentieth century mathematics. Axioms and proof methods used by mathematicians from those periods are explored alongside the problems in Euclidean geometry that lead to their work. Students cultivate skills applicable to much of modern mathematics

through sections that integrate concepts like projective and hyperbolic geometry with representative proof-based exercises. For its sophisticated account of ancient to modern geometries, this text assumes only a year of college mathematics as it builds towards its conclusion with algebraic curves and quaternions. Euclid's work has affected geometry for thousands of years, so this text has something to offer to anyone who wants to broaden their appreciation for the field.
