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Titolo	Analytic hyperbolic geometry in N dimensions : an introduction // Abraham A. Ungar, Mathematics Department, North Dakota State University, Fargo, North Dakota, USA
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ISBN	0-429-17474-8 1-4822-3668-0
Descrizione fisica	1 online resource (616 p.)
Collana	A Science Publishers Book
Disciplina	516.9
Soggetti	Geometry, Hyperbolic
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	A CRC title. A Science Publishers book.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Front Cover; Preface; Contents; List of Figures; Author's Biography; 1. Introduction; Part I: Einstein Gyrogroups and Gyrovector Spaces; 2. Einstein Gyrogroups; 3. Einstein Gyrovector Spaces ; 4. Relativistic Mass Meets Hyperbolic Geometry; Part II: Mathematical Tools for Hyperbolic Geometry; 5. Barycentric and Gyrobarycentric Coordinates; 6. Gyroparallelograms and Gyroparallelotopes; 7. Gyrotrigonometry; Part III: Hyperbolic Triangles and Circles; 8. Gyrotriangles and Gyrocircles; 9. Gyrocircle Theorems; Part IV: Hyperbolic Simplices, Hyperplanes and Hyperspheres in N Dimensions 10. Gyrosimplex Gyrogeometry 11. Gyrotetrahedron Gyrogeometry; Part V: Hyperbolic Ellipses and Hyperbolas; 12. Gyroellipses and Gyrohyperbolas ; Part VI: Thomas Precession; 13. Thomas Precession; Notations and Special Symbols; Bibliography
Sommario/riassunto	The concept of the Euclidean simplex is important in the study of n-dimensional Euclidean geometry. This book introduces for the first time the concept of hyperbolic simplex as an important concept in n-dimensional hyperbolic geometry. Following the emergence of his gyroalgebra in 1988, the author crafted gyrolanguage, the algebraic language that sheds natural light on hyperbolic geometry and special

relativity. Several authors have successfully employed the author's gyroalgebra in their exploration for novel results. Francoise Chatelin noted in her book, and elsewhere, that the computation la

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