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| 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<br>10. Gyrosimplex Gyrogeometry11. 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