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Soggetti	Computers Programming languages (Electronic computers) Artificial intelligence Mathematical logic Computer graphics Algorithms Theory of Computation Programming Languages, Compilers, Interpreters Artificial Intelligence Mathematical Logic and Formal Languages Computer Graphics
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Nota di contenuto	Automated geometric reasoning: Dixon resultants, Gröbner bases, and characteristic sets -- Extended Dixon's resultant and its applications -- Computational geometry problems in REDLOG -- Probabilistic verification of elementary geometry statements -- Computational synthetic geometry with Clifford algebra -- Clifford algebraic calculus for geometric reasoning -- Area in Grassmann geometry -- Automated production of readable proofs for theorems in non-Euclidean geometries -- Points on algebraic curves and the parametrization problem -- Flat central configurations of four planet motions -- Integration of reasoning and algebraic calculus in geometry.

Sommario/riassunto

This book constitutes the thoroughly refereed and revised post-workshop proceedings of the International Workshop on Automated Deduction in Geometry, held in Toulouse, France, in September 1996. The revised extended papers accepted for inclusion in the volume were selected on the basis of double reviewing. Among the topics covered are automated geometric reasoning and the deduction applied to Dixon resultants, Gröbner bases, characteristic sets, computational geometry, algebraic geometry, and planet motion; furthermore the system REDLOG is demonstrated and the verification of geometric statements as well as the automated production of proof in Euclidean Geometry are present.
