1. Record Nr. UNINA9910768475903321 Automated deduction in geometry: Second International Workshop, **Titolo** ADG '98, Beijing, China, August 1998: proceedings // Xiao-Shan Gao. Dongming Wang, Lu Yang, editors Berlin; ; Heidelberg:,: Springer,, [1999] Pubbl/distr/stampa ©1999 **ISBN** 3-540-47997-X Edizione [1st ed. 1999.] Descrizione fisica 1 online resource (VIII, 292 p.) Collana Lecture Notes in Artificial Intelligence;; 1669 Disciplina 516.00285 Soggetti Geometry - Data processing Automatic theorem proving Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Includes bibliographical references and index. Nota di bibliografia Automatic Geometry Theorem-Proving and Automatic Geometry Nota di contenuto Problem-Solving -- Solving Geometric Problems with Real Quantifier Elimination -- Automated Discovering and Proving for Geometric Inequalities -- Proving Newton's Propositio Kepleriana Using Geometry and Nonstandard Analysis in Isabelle -- Readable Machine Solving in Geometry and ICAI Software MSG -- Plane Euclidean Reasoning -- A Clifford Algebraic Method for Geometric Reasoning -- Clifford Term Rewriting for Geometric Reasoning in 3D -- Some Applications of Clifford Algebra to Geometries -- Decomposing Algebraic Varieties --An Application of Automatic Theorem Proving in Computer Vision --Automated Geometry Diagram Construction and Engineering Geometry -- A 2D Geometric Constraint Solver for Parametric Design Using Graph Analysis and Reduction -- Variant Geometry Analysis and Synthesis in Mechanical CAD.

The Second International Workshop on Automated Deduction in

Geometry (ADG '98) was held in Beijing, China, August 1–3, 1998. An increase of interest in ADG '98 over the previous workshop ADG '96 is represented by the notable number of more than 40 participants from ten countries and the strong tech- cal program of 25 presentations, of which two one-hour invited talks were given by Professors Wen-tsun

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Wu and Jing-Zhong Zhang. The workshop provided the participants with a well-focused forum for e?ective exchange of new ideas and timely report of research progress. Insight surveys, algorithmic developments, and applications in CAGD/CAD and computer vision presented by active - searchers, together with geometry software demos, shed light on the features of this second workshop. ADG '98 was hosted by the Mathematics Mechanization Research Center (MMRC) with ?nancial support from the Chinese Academy of Sciences and the French National Center for Scienti?c Research (CNRS), and was organized by the three co-editors of this proceedings volume. The papers contained in the volume were selected, under a strict refereeing procedure, from those presented at ADG '98 and submitted afterwards. Most of the 14 accepted papers were carefully revised and some of the revised versions were checked again by external reviewers. We hope that these papers cover some of the most recent and signi?cant research results and developments and re?ect the current state-of-theart of ADG.