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Nota di contenuto	How solid is solid modeling? -- Robustness issues in geometric algorithms -- Implementing geometric algorithms robustly -- Robustness in geometric algorithms -- Applications of computational geometry in mechanical engineering design and manufacture -- On some applications of computational geometry in manufacturing and virtual environments -- Visualizing geometric algorithms — State of the art -- Geometric algorithm visualization, current status and future -- Position paper for panel discussion -- Designing the computational geometry algorithms library CGAL -- The computational geometry impact task force report: An executive summary -- Geometric manipulation of flexible ligands -- Ray-representation formalism for

geometric computations on protein solid models -- Column-based strip packing using ordered and compliant containment -- Computing a flattest, undercut-free parting line for a convex polyhedron, with application to mold design -- Geometric problems in machine learning -- Matching convex polygons and polyhedra, allowing for occlusion -- Stably placing piecewise smooth objects -- A beam-tracing algorithm for prediction of indoor radio propagation -- Extracting geometric information from architectural drawings -- Using the visibility complex for radiosity computation -- The CGAL kernel: A basis for geometric computation -- Triangle: Engineering a 2D quality mesh generator and Delaunay triangulator.

Sommario/riassunto

This anthology is based on the First ACM Workshop on Applied Computational Geometry, WACG '96, held in Philadelphia, PA, USA, in May 1996, as part of the FCRC Conference. Today, CG is in transition and applied computational geometry has established itself as a fertile meeting ground for theorists from core computational geometry and practitioners from the potential application areas to exchange their ideas and identify issues of common interest. The book presents 11 invited contributions and state-of-the-art reports by leading experts together with 12 refereed full papers selected from 32 submissions. It points the way towards geometrical engineering and addresses researchers and professionals sharing an interest in geometric algorithms and techniques and their use in computational sciences and engineering.