Record Nr. UNISA996465276903316 Autore Günther Oliver Titolo Efficient Structures for Geometric Data Management [[electronic resource] /] / by Oliver Günther Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa , 1988 **ISBN** 3-540-46007-1 Edizione [1st ed. 1988.] Descrizione fisica 1 online resource (XIV, 138 p.) Collana Lecture Notes in Computer Science, , 0302-9743 ; ; 337 005.1 Disciplina Soggetti Algorithms Data structures (Computer science) Database management Artificial intelligence Computer graphics Application software Algorithm Analysis and Problem Complexity Data Structures Database Management Artificial Intelligence Computer Graphics Information Systems Applications (incl. Internet) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto Operators and representation schemes for geometric data --Polyhedral chains -- A dual approach to detect polyhedral intersections in arbitrary dimensions -- The cell tree: An index for geometric databases -- The arc tree: An approximation scheme to represent arbitrary curved shapes -- Conclusions. The efficient management of geometric data, such as points, curves, or Sommario/riassunto polyhedra in arbitrary dimensions, is of great importance in many complex database applications like CAD/CAM, robotics, or computer

vision. To provide optimal support for geometric operations, it is crucial to choose efficient data representation schemes. The first part

of this book contains a taxonomy and critical survey of common operations and representation schemes for geometric data. Then several new schemes for the efficient support of set operations (union, intersection) and search operations (point location, range search) are presented.