Record Nr. UNISA996466253203316 Transactions on Computational Science IX [[electronic resource]]: **Titolo** Special Issue on Voronoi Diagrams in Science and Engineering / / edited by C. J. Kenneth Tan Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa **ISBN** 1-280-38937-0 9786613567291 3-642-16007-7 [1st ed. 2010.] Edizione 1 online resource (XIII, 203 p. 87 illus.) Descrizione fisica Transactions on Computational Science, , 1866-4733;; 6290 Collana Disciplina 004.0151 Soggetti Computers Graph theory **Bioinformatics** Computer science—Mathematics Optical data processing Algorithms Theory of Computation **Graph Theory** Computational Biology/Bioinformatics Discrete Mathematics in Computer Science Image Processing and Computer Vision Algorithm Analysis and Problem Complexity Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Constructing Two-Dimensional Voronoi Diagrams via Divide-and-Conquer of Envelopes in Space -- Approximate Shortest Path Queries Using Voronoi Duals -- On the Triangle-Perimeter Two-Site Voronoi Diagram -- Voronoi Graph Matching for Robot Localization and Mapping -- Properties and an Approximation Algorithm of Round-Tour

Voronoi Diagrams -- Protein-Ligand Docking Based on Beta-Shape -- Kinetic Line Voronoi Operations and Their Reversibility -- High Quality

Sommario/riassunto

Visual Hull Reconstruction by Delaunay Refinement -- Geosimulation of Geographic Dynamics Based on Voronoi Diagram.

The 9th issue of the Transactions on Computational Science journal, edited by François Anton, is devoted to the subject of Voronoi diagrams in science and engineering. The 9 papers included in the issue constitute extended versions of selected papers from the International Symposium on Voronoi Diagrams, held in Copenhagen, Denmark, June 23-36, 2009. Topics covered include: divide and conquer construction of Voronoi diagrams; new generalized Voronoi diagrams or properties of existing generalized Voronoi diagrams; and applications of Voronoi diagrams and their duals in graph theory, computer graphics, bioinformatics, and spatial process simulation.