1. Record Nr. UNINA9910462952603321 Autore Cheng Siu-Wing Titolo Delaunay mesh generation // Siu-Wing Cheng, Tamal Krishna Dey, Jonathan Richard Shewchuk Boca Raton:,: CRC Press,, 2013 Pubbl/distr/stampa **ISBN** 0-429-18609-6 1-58488-731-1 Descrizione fisica 1 online resource (404 p.) Chapman & Hall/CRC computer and information science series Collana Altri autori (Persone) DeyTamal K <1964-> (Tamal Krishna) ShewchukJonathan Disciplina 514/.223 Soggetti Nets (Mathematics) Numerical grid generation (Numerical analysis) Triangulation Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto Front Cover; Contents; Preface; Chapter 1: Introduction; Chapter 2: Two-dimensional Delaunay triangulations; Chapter 3: Algorithms for constructing Delaunay triangulations; Chapter 4: Three-dimensional Delaunay triangulations; Chapter 5: Algorithms for constructing Delaunay triangulations in; Chapter 6: Delaunay refinement in the plane; Chapter 7: Voronoi diagrams and weighted complexes; Chapter 8: Tetrahedral meshing of PLCs; Chapter 9: Weighted Delaunay refinement for PLCs with small angles; Chapter 10: Sliver exudation; Chapter 11: Refinement for sliver exudation Chapter 12: Smooth surfaces and point samplesChapter 13: Restricted Delaunay triangulations of surface samples; Chapter 14: Meshing smooth surfaces and volumes; Chapter 15: Meshing piecewise smooth

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Sommario/riassunto

"Going beyond, yet thoroughly rooted to theory, this book provides a comprehensive look at the algorithms that can produce quality Delaunay meshes through a paradigm called the Delaunay refinement. The authors describe meshing algorithms that can be built on the Delaunay refinement paradigm along with the involved mathematical

analysis. In addition to introducing the theoretical foundation of meshing, the text discusses practical issues associated with the use of these algorithms and explores new developments in guaranteed meshing. The book also includes pseudo code as well as downloadable computer programs for meshing"--