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Disciplina 003.3

Soggetti Computer simulation

Geometry

Computer-aided engineering Computational intelligence

Mathematics Visualization

Discrete mathematics Simulation and Modeling

Computer-Aided Engineering (CAD, CAE) and Design

Computational Intelligence Discrete Mathematics

Lingua di pubblicazione Inglese

Nota di contenuto

Formato Materiale a stampa

Livello bibliografico Monografia

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Introduction -- Splines and Subdivision -- Meshes and Subdivision -- Analysis of Subdivision Surface -- n-sided Patches and Subdivision Surfaces -- Energy Optimization Method and Subdivision Surfaces -- Interactive Shape Editing for Subdivision Surfaces -- Intersection and trimming of subdivision surfaces -- Subdivision Surfaces and Curve Networks -- Fitting Unstructured Triangle Meshes -- Subdivision

Surfaces Based Poisson Mesh Edit.

Sommario/riassunto This book offers a comprehensive introduction to Subdivision Surface

Modeling Technology focusing not only on fundamental theories but also on practical applications. It furthers readers' understanding of the contacts between spline surfaces and subdivision surfaces, enabling them to master the Subdivision Surface Modeling Technology for analyzing subdivision surfaces. Subdivision surface modeling is a popular technology in the field of computer aided design (CAD) and computer graphics (CG) thanks to its ability to model meshes of any topology. The book also discusses some typical Subdivision Surface Modeling Technologies, such as interpolation, fitting, fairing, intersection, as well as trimming and interactive editing. It is a valuable tool, enabling readers to grasp the main technologies of subdivision surface modeling and use them in software development, which in turn leads to a better understanding of CAD/CG software operations.