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Nota di contenuto	Part 1: High-order Adapted Meshes -- P2 Mesh Optimization Operators -- Isometric Embedding of Curvilinear Meshes Defined on Riemannian Metric Spaces -- Defining a Stretching and Alignment Aware Quality Measure for Linear and Curved 2D Meshes -- Curvilinear Mesh Adaptation -- Part 2 : Mesh and Geometry Blocks, Hex mesh generation -- A 44-Element Mesh of Schneiders' Pyramid: Bounding the Difficulty of Hex-Meshing Problems -- Representing Three-dimensional Cross Fields Using 4th Order Tensors -- Medial Axis Based Bead Feature

Recognition for Automotive Body Panel Meshing -- An Angular Method with Position Control for Block Mesh Squareness Improvement -- Dual Surface Based Approach to Block Decomposition of Solid Models -- Automatic Blocking of Shapes using Evolutionary Algorithm -- Multi-block mesh refinement by adding mesh singularities -- Part 3: Simplicial Meshes -- Tuned Terminal Triangles Centroid Delaunay Algorithm for Quality Triangulation -- Local Bisection for Conformal Renement of Unstructured 4D Simplicial Meshes -- A Construction of Anisotropic Meshes Based on Quasi Conformal Mapping -- Terminal Star Operations Algorithm for Tetrahedral Mesh Improvement -- Part 4: Curved High-Order Meshes -- Towards Simulation-Driven Optimization of High-Order Meshes by the Target-Matrix Optimization Paradigm -- Curving for Viscous Meshes -- An Angular Approach to Untangling High-Order Curvilinear Triangular Meshes -- Imposing Boundary Conditions to Match a CAD Virtual Geometry for the Mesh Curving Problem -- Part 5: Parallel and Fast Meshing Methods -- Exact Fast Parallel Intersection of Large 3-D Triangular Meshes -- Performance Comparison and Workload Analysis of Mesh Untangling and Smoothing Algorithms -- Accurate Manycore-Accelerated Manifold Surface Remesh Kernels -- Parallel Performance Model for Vertex Repositioning Algorithms and Application to Mesh Partitioning -- Discrete Mesh Optimization on GPU -- Mesh Morphing for Turbomachinery Applications Using Radial Basis Functions.

Sommario/riassunto

The International Meshing Roundtable (IMR) brings together researchers, developers, and application experts in a variety of disciplines, from all over the world, to present and discuss ideas on mesh generation and related topics. The technical papers in this volume present theoretical and novel ideas and algorithms with practical potential, as well as technical applications in science and engineering, geometric modelling, computer graphics, and visualization.