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Nota di contenuto	Contents -- Preface -- A Synthesis of A Posteriori Error Estimation Techniques for Conforming, Non-Conforming and Discontinuous Galerkin Finite Element Methods -- Averaging Techniques for Reliable and Efficient A Posteriori Finite Element Error Control: Analysis and Applications -- Adaptive Computation with PML for Time-harmonic Scattering Problems -- Recent Progress on A-posteriori Error Analysis for the p and h-p Finite Element Methods -- Adaptive Mortar Edge Element Methods in Electromagnetic Field Computation -- 1. Introduction -- 2. The Hilbert spaces and its trace spaces -- 3. Macrohybrid formulation of the eddy currents equation -- 4. Mortar edge element approximations -- 5. Multilevel iterative solution methods -- 6. Residual-type a posteriori error estimators -- 7. Numerical Results -- References -- Adaptive Multi-Meshes in Finite Element Approximation of Optimal Control -- Maximum Norm Error Estimates for the Finite Element Method Allowing Highly Refined Grids -- Moving Mesh Methods for Computational Fluid Dynamics -- 1. Introduction -- 2. Interpolation free MMM -- 3. MMM using interpolation I: finite element approach -- 4. MMM using interpolation

II: finite volume approach -- 5. Application I: incompressible flow simulations -- 6. Application II: hyperbolic conservation laws -- 7. Concluding remarks -- References -- A Conservative Scheme for 2D and 3D Adaptive Semi-Lagrangian Advection -- An Optimal Streamline Diffusion Finite Element Method for a Singularly Perturbed Problem -- A Posteriori Error Estimates of Mixed Methods for Two Phase Flow Problems -- Reduced-order Modeling of Navier-Stokes Equations via Centroidal Voronoi Tessellation -- A Two-mesh Superconvergence Method for Mesh Adaptivity -- Adaptive Moving Mesh Modeling for Two Dimensional Groundwater Flow and Transport -- Adaptive Computation of the Corner Singularity with the Monotone Jump Condition Capturing Scheme -- Adaptive Mesh Refinement and its Application to Magneto-Hydrodynamics -- An Immersed Finite Element Method for Elasticity Equations with Interfaces -- Derivative Superconvergence of Equilateral Triangular Finite Elements -- A Splitting Moving Mesh Method for 3-D Quenching and Blow-Up Problems -- An Adaptive Algorithm for Ordinary, Stochastic and Partial Differential Equations -- Recovery Type A Posteriori Error Estimate for Distributed Convex Optimal Control Problems Governed by Integral-differential Equations -- A Mortar Element Method for Coupling Natural Boundary Element Method and Finite Element Method for Unbounded Domain Problem -- Robust and Efficient Adaptive Moving Mesh Solution of the 2-D Euler Equations cont.
