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Nota di contenuto	Introduction -- Dual weighted residual based error control for nonstationary convection-dominated equations: potential or ballast -- Automatic variationally stable analysis for FE computations: An introduction -- Practical contributions on the fictitious domain method for a fluid-structure interaction problem -- Implicit-explicit multistep methods for nonlinear convection-diffusion equations -- H(div)-conforming spaces based on general meshes, with interface constraints: accuracy enhancement, multiscale, and hp-adaptivity -- A numerical method for the Hemker Problem -- On basic iteration schemes for nonlinear AFC discretizations -- A linearly implicit splitting method for solving time dependent semilinear reaction-diffusion systems -- Improved energy-norm a posteriori error

estimates for singularly perturbed reaction-diffusion problems on anisotropic meshes -- Implicit LES with high-order H(div)-conforming FEM for incompressible Navier-Stokes flows -- Numerical methods for singularly perturbed parabolic problems with incompatible boundary-initial data in two space dimensions -- Quasinorms in semilinear elliptic problems -- Centred splash of a vertical jet on a horizontal rotating disc: recent findings and resolving controversies over the hydraulic jump -- Homogenisation of parabolic/hyperbolic media -- Isogeometric analysis for singularly perturbed problems in 1-D: a numerical study.

Sommario/riassunto

This volume gathers papers presented at the international conference BAIL, which was held at the University of Strathclyde, Scotland from the 14th to the 22nd of June 2018. The conference gathered specialists in the asymptotic and numerical analysis of problems which exhibit layers and interfaces. Covering a wide range of topics and sharing a wealth of insights, the papers in this volume provide an overview of the latest research into the theory and numerical approximation of problems involving boundary and interior layers.
