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Nota di contenuto	Alberto Clarich -- Uncertainty Quantification Based on Multi fidelity Metamodels and Reduced Order Models -- Alain Dervieux -- Variational Study of Mesh and Shape Optimization -- Shukun Zhang -- An Interpretation of Chinas Actions for Global Climate-Neutral Aviation -- Antoine Desideri -- Combining Pareto Optimality with Nash Games in Multi Objective Prioritized Optimization of an Aircraft Flight Performance -- Christian Peco -- Biomimetic Coordination and Optimization Models for Transport Networks -- Hiroshi Suito -- Causal Inference for Power Grid Dynamics.
Sommario/riassunto	This book provides the latest knowledge and achievements in applied computational science from experts in academia, research institutions, and industry. It delves into advanced numerical methods and design tools aimed at achieving sustainability and climate neutrality in aviation, surface transport, and industry. Readers explore cutting-edge topics including multi-disciplinary design and optimization, artificial intelligence, high-fidelity simulation technologies, and critical operational aspects. Highlighting the achievements of several EU-

funded projects, the book offers a detailed overview of state-of-the-art digitalized technology trends in scientific and industrial design processes, presenting only the most excellent contributions from recent workshops and congresses. The book is dedicated to the eighties anniversary of Jacques Periaux, one of the pioneers in Europe for applying computational fluid dynamics and numerical design optimisation in aerospace industry.
