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Nota di contenuto	Chapter 1: Multiphysics computation of thermomechanical fatigue in electronics under electrical loading -- Chapter 2: Phase-field modeling of fatigue crack propagation in brittle materials -- Chapter 3: A non-intrusive global/local cycle-jumping techniques: application to visco-plastic structures -- Chapter 4: VEM approach for homogenization of fibre-reinforced composites with curvilinear inclusions -- Chapter 5: Free Bloch wave propagation in periodic Cauchy materials: analytical and computational strategies -- Chapter 6: Divergence free VEM for the Stokes problem with no internal degrees of freedom -- Chapter 7: Strategy for Preventing Membrane Locking through Reparametrization -- Chapter 8: Model-free fracture mechanics and fatigue -- Chapter 9: Node based non-invasive form finding revisited - the challenge of remeshing -- Chapter 10: Micropolar modelling of periodic Cauchy materials based on asymptotic homogenization -- Chapter 11: Experimental and numerical investigation of granules as crash-absorber in ship building -- Chapter 12: On Hydraulic Fracturing in

Fully and Partially Saturated Brittle Porous Material -- Chapter13: Efficient two-scale modeling of porous media using numerical model reduction with fully computable error bounds -- Chapter 14: Perspectives on the master-master contact formulation -- Chapter 15: Remarks on the History of Glacier Research and the Flow Law of Ice -- Chapter 16: Anisotropic Failure Criteria in Relation to Crack Phase-Field Modeling at Finite Strains.

Sommario/riassunto

This Festschrift is dedicated to Professor Dr.-Ing. habil. Peter Wriggers on the occasion of his 70th birthday. Thanks to his high dedication to research, over the years Peter Wriggers has built an international network with renowned experts in the field of computational mechanics. This is proven by the large number of contributions from friends and collaborators as well as former PhD students from all over the world. The diversity of Peter Wriggers network is mirrored by the range of topics that are covered by this book. To name only a few, these include contact mechanics, finite & virtual element technologies, micromechanics, multiscale approaches, fracture mechanics, isogeometric analysis, stochastic methods, meshfree and particle methods. Applications of numerical simulation to specific problems, e. g. Biomechanics and Additive Manufacturing is also covered. The volume intends to present an overview of the state of the art and current trends in computational mechanics for academia and industry.