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Altri autori (Persone)	HömbergDietmar MüllerWolfgang H WeissWolf
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Soggetti	Continuum mechanics Numerical analysis Mechanics, Applied Thermodynamics Heat engineering Heat - Transmission Mass transfer Continuum Mechanics Numerical Analysis Engineering Mechanics Engineering Thermodynamics, Heat and Mass Transfer
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Nota di contenuto	Wolfgang Dreyer The Life of a Free-Spirited Scientist -- An Eulerian formulation for dissipative materials using Lie derivatives and GENERIC -- Reference map approach to Eulerian thermomechanics using GENERIC -- Pitfalls in the understanding of thermomechanics of continua -- Compressibility and volume variations due to composition in multicomponent fluids -- Incorporating dissipation in the Lagrange equations: Part I Theory -- Incorporating dissipation in the Lagrange equations: Part II Examples -- On Jump Conditions at Phase Boundaries for Ordered and Disordered Phases -- Balance Laws and Transport

Theorems for Flows with Singular Interfaces -- Multi Velocity Sharp Interface Continuum Thermodynamics of Fluid Systems with Adsorption -- Damage Modeling in Batteries by Coupling Lithiation and Mechanics by Means of a Finite Element Method -- On the non constant dielectric susceptibility in continuum models for electrolytes -- Elastic Plastic Creep Deformation and Damage in Sn Ag Cu Solder Alloys -- Constitutive theory and simulation of entropy and enthalpy relaxation in the glass transition regime -- Constitutive equations for non linear isotropic limited compressible elastic solids -- Phase field Cosserat modelling of grain boundary pore interaction -- Phase field modeling and sharp interface limits of multi component gas liquid flows with electrochemical reactions and phase transition effects -- Hyperbolic relaxation of the chemical potential in the viscous Cahn Hilliard equation -- A new approach to thermodynamically consistent models for SMAs -- Which frequency bands are responsible for noise-induced triggering of thermoacoustic instabilities? -- A model for tidal effects on a planet -- Mass transport in Fokker Planck equations with general potentials -- Distortion and Residual Stresses in an Additively Manufactured Disc Stack: Continuum Modeling and FEM Simulation for Polyamide 12 -- Approaches to conservative Smoothed Particle Hydrodynamics with entropy -- Martensitic nucleation a phonon thermodynamics approach -- The Maximum Entropy Principle in Nonequilibrium Thermodynamics: A Brief History and the Contributions of Wolfgang Dreyer -- Phonon Hydrodynamics Revisited -- On the visual explanation of the isotherm dilute atmosphere.

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#### Sommario/riassunto

This book is in honor of the late Professor Wolfgang Dreyer from the Weierstrass Institute for Applied Analysis and Stochastics (WIAS) in Berlin.

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