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Titolo	Advances in Computational Plasticity : A Book in Honour of D. Roger J. Owen // edited by Eugenio Oñate, Djordje Peric, Eduardo de Souza Neto, Michele Chiumenti
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Collana	Computational Methods in Applied Sciences, , 1871-3033 ; ; 46
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Soggetti	Mechanical engineering Computer science - Mathematics Building materials Manufactures Mechanical Engineering Computational Science and Engineering Structural Materials Manufacturing, Machines, Tools, Processes Building Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Foreword -- Professor David Roger Jones Owen. A Tribute to 40 Years of Cooperation between the Computational Mechanics Communities at Barcelona and Swansea, by E. Oñate -- Comparison of Phase-field Models of Fracture Coupled with Plasticity, by R. Alessi, M. Ambati, T. Gerasimov, S. Vidoli, L. De Lorenzis -- Bridging the Gap between Concrete Microstructures and Tunnel Linings, by E. Binder, H. Wang, T. Schlappal, J.L. Zhang, Y. Yuan, B. Pichler, and H.A. Mang -- Phase-Field Formulation for Ductile Fracture, by M.J. Borden, T. J.R. Hughes, C. M. Landis, A. Anwari, I. J. Lee -- Computational Strategies for Speeding-up F.E. Simulations of Metal Forming Processes, by L. Fourment, K. K' Podzo, F. Delalondre, U. Ripert, M. Ramadan, F. Vi, H. Digonnet -- Discrete Simulation of Cone Penetration in Granular Materials, by A. Gens, M. Arroyo, J. Butlanska, C. O'Sullivan -- A Brief Review on

Computational Modelling of Rupture in Soft Biological Tissues, by O. Gültekin, G.A. Holzapfel -- Performance Comparison of Nodally Integrated Galerkin Meshfree Methods and Nodally Collocated Strong Form Meshfree Methods, by M. Hillman, J-S. Chen -- Data-Driven Computing, by T. Kirchdoerfer and M. Ortiz -- Elasto-Plastic Response of Thick Plates Built in Functionally Graded using the Third Order Plate Theory, by M. Kleiber, M. Taczkaa, R. Buczkowski -- Extended-PGD Model Reduction for Nonlinear Solid Mechanics Problems Involving Many Parameters, by P. Ladevèze, Ch. Paillet, D. Néron -- Data-Driven Self-Consistent Clustering Analysis of Heterogeneous Materials with Crystal Plasticity, by Z. Liu, O.L. Kafka, C.Yu, W.K. Liu -- A Viscoelastic-Viscoplastic Combined Constitutive Model for Thermoplastic Resins, by S. Matsubara and K. Terada -- Fracturing in Dry and Saturated Porous Media, by E. Milanese, C. D. Toan, L. Simoni, B.A. Schrefler -- On Multi-Scale Computational Design of Structural Materials using Topological Derivatives, by J. Oliver, A. Ferrer, J.C. Cante, S.M. Giusti, O. Lloberas-Valls -- Advances in the DEM and Coupled DEM and FEM Techniques in Non Linear Solid Mechanics, by E. Oñate, F. Zárata, M.A. Celigueta, J.M. González, J.Miquel, J.M. Carbonell, F. Arrufat, S. Latorre, M. Santasusana -- The Influence of the Collagen Architecture on the Mechanical Response of the Human Cornea, by A. Pandolfi -- History of Computational Classical Elasto-Plasticity, by E. Stein -- VEM for Inelastic Solids, by R.L. Taylor, E. Artioli -- Improved Contact Stress Recovery for a Mortar-based Contact Formulation, by C. Wilking, M. Bischoff, E. Ramm -- Efficient Low Order Virtual Elements for Anisotropic Materials at Finite Strains, by P. Wriggers, B. Hudobivnik and J. Korelc.

Sommario/riassunto

This book brings together some 20 chapters on state-of-the-art research in the broad field of computational plasticity with applications in civil and mechanical engineering, metal forming processes, geomechanics, nonlinear structural analysis, composites, biomechanics and multi-scale analysis of materials, among others. The chapters are written by world leaders in the different fields of computational plasticity.
