1. Record Nr. UNINA9910130738403321

Titolo	Non-linear finite element analysis of solids and structures [[electronic resource] /] / Rene. de Borst ... [et al.]
Pubbl/distr/stampa	Chichester, West Sussex, : Wiley, 2012
ISBN	1-283-64510-6 1-118-37599-8 1-118-37600-5 1-118-37601-3 1-118-37593-9
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (542 p.)
Collana	Wiley Series in Computational Mechanics
Classificazione	TEC006000
Altri autori (Persone)	BorstRene de
Disciplina	620.1 624.171
Soggetti	Finite element method - Data processing Structural analysis (Engineering) - Data processing Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Non-linear Finite Element Analysis of Solids and Structures; Contents; Preface; Series Preface; Notation; About the Code; PART I: BASIC CONCEPTS AND SOLUTION TECHNIQUES; 1 Preliminaries; 1.1 A Simple Example of Non-linear Behaviour; 1.2 A Review of Concepts from Linear Algebra; 1.3 Vectors and Tensors; 1.4 Stress and Strain Tensors; 1.5 Elasticity; 1.6 The PyFEM Finite Element Library; References; 2 Non-linear Finite Element Analysis; 2.1 Equilibrium and Virtual Work; 2.2 Spatial Discretisation by Finite Elements; 2.3 PyFEM: Shape Function Utilities; 2.4 Incremental-iterative Analysis 2.5 Load versus Displacement Control2.6 PyFEM: A Linear Finite Element Code with Displacement Control; References; 3 Geometrically Non-linear Analysis; 3.1 Truss Elements; 3.1.1 Total Lagrange Formulation; 3.1.2 Updated Lagrange Formulation; 3.1.3 Corotational Formulation; 3.2 PyFEM: The Shallow Truss Problem; 3.3 Stress and Deformation Measures in Continua; 3.4 Geometrically Non-linear Formulation of Continuum Elements; 3.4.1 Total and Updated Lagrange

Formulations; 3.4.2 Corotational Formulation; 3.5 Linear Buckling Analysis; 3.6 PyFEM: A Geometrically Non-linear Continuum Element References4 Solution Techniques in Quasi-static Analysis; 4.1 Line Searches; 4.2 Path-following or Arc-length Methods; 4.3 PyFEM: Implementation of Riks' Arc-length Solver; 4.4 Stability and Uniqueness in Discretised Systems; 4.4.1 Stability of a Discrete System; 4.4.2 Uniqueness and Bifurcation in a Discrete System; 4.4.3 Branch Switching; 4.5 Load Stepping and Convergence Criteria; 4.6 Quasi-Newton Methods; References; 5 Solution Techniques for Non-linear Dynamics; 5.1 The Semi-discrete Equations; 5.2 Explicit Time Integration; 5.3 PyFEM: Implementation of an Explicit Solver
5.4 Implicit Time Integration5.4.1 The Newmark Family; 5.4.2 The HHT -method; 5.4.3 Alternative Implicit Methods for Time Integration; 5.5 Stability and Accuracy in the Presence of Non-linearities; 5.6 Energy-conserving Algorithms; 5.7 Time Step Size Control and Element Technology; References; PART II: MATERIAL NON-LINEARITIES; 6 Damage Mechanics; 6.1 The Concept of Damage; 6.2 Isotropic Elasticity-based Damage; 6.3 PyFEM: A Plane-strain Damage Model; 6.4 Stability, Ellipticity and Mesh Sensitivity; 6.4.1 Stability and Ellipticity; 6.4.2 Mesh Sensitivity; 6.5 Cohesive-zone Models
6.6 Element Technology: Embedded Discontinuities6.7 Complex Damage Models; 6.7.1 Anisotropic Damage Models; 6.7.2 Microplane Models; 6.8 Crack Models for Concrete and Other Quasi-brittle Materials; 6.8.1 Elasticity-based Smeared Crack Models; 6.8.2 Reinforcement and Tension Stiffening; 6.9 Regularised Damage Models; 6.9.1 Non-local Damage Models; 6.9.2 Gradient Damage Models; References; 7 Plasticity; 7.1 A Simple Slip Model; 7.2 Flow Theory of Plasticity; 7.2.1 Yield Function; 7.2.2 Flow Rule; 7.2.3 Hardening Behaviour; 7.3 Integration of the Stress-strain Relation
7.4 Tangent Stiffness Operators

Sommario/riassunto

Built upon the two original books by Mike Crisfield and their own lecture notes, renowned scientist Rene de Borst and his team offer a thoroughly updated yet condensed edition that retains and builds upon the excellent reputation and appeal amongst students and engineers alike for which Crisfield's first edition is acclaimed. Together with numerous additions and updates, the new authors have retained the core content of the original publication, while bringing an improved focus on new developments and ideas. This edition offers the latest insights in non-linear finite element technolo

2. Record Nr. UNINA9910784216703321

Titolo	Finance and competitiveness in developing countries [[electronic resource] /] / edited by Jose Maria Fanelli and Rohinton Medhora
Pubbl/distr/stampa	Ottawa, : International Development Research Centre, 2002
ISBN	1-280-71817-X 9786610718177 1-55250-217-1
Descrizione fisica	1 online resource (384 p.)
Altri autori (Persone)	FanelliJose Maria MedhoraRohinton <1959->
Disciplina	332/.09172/4
Soggetti	Finance - Developing countries Competition - Developing countries Developing countries Commerce Developing countries Commerce Case studies
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents; List of figures; List of tables; List of contributors; Acknowledgements; 1 Finance and competitiveness: Framework and synthesis; 2 Finance and changing trade patterns in developing countries: The Argentine case; 3 Finance and changing trade patterns in Brazil; 4 International competitiveness, trade and finance: India; 5 International trade, productivity and competitiveness: The case of the Indonesian manufacturing sector; 6 Trade, competitiveness and finance in the Philippine manufacturing sector, 1980–95 7 Competitiveness, international trade and finance in a minerals-rich economy: The case of South Africa8 Trade, finance and competitiveness in Tunisia; 9 Trade openness, industrial change and economic development; 10 Trade specialization and economic growth; 11 Two problems in bank lending for development; 12 Exchange rates, real–financial and micro–macro linkages; Index;
Sommario/riassunto	Using detailed trade and firm-level financial data, the authors demonstrate, for example, that while links between finance and competitiveness are strong, they are not uniform across sectors and

countries. This book examines the link between finance and competitiveness at the macro and sectoral levels in seven different countries: Argentina, Brazil, India, Indonesia, the Philippines, South Africa, and Tunisia, and investigates key international issues, such as the evidence of the impact of exchange rate variability on trade, patterns in bank lending, and trade openness and development.