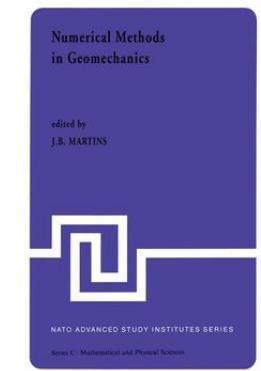


Numerical Methods in Geomechanics

Proceedings of the NATO Advanced Study Institute, University of Minho, Braga, Portugal,
held at Vimeiro, August 24 & September 4, 1981



List of Participants xi Lecture Program xv CHAPTER I - FUNDAMENTALS 1 Field Equations E. R. Arantes e Oliveira 3 2 Basic Formulation of Static and Dynamic Behaviour of Soil and Other Porous Media O. C. Zienkiewicz 39 3 Generalized Plasticity and Some Models for Geomechanics O. C. Zienkiewicz 57 4 Constitutive Equations for Soil Media Jean H. Proevost 79 5 Constitutive Modeling and Soil-Structure Interaction C. S. Desai 103 6 Rock Mass Behaviour and Its Mathematical Modelling K. Kovayi 145 CHAPTER II - FINITE ELEMENTS TECHNIQUES 165 1 Numerical Analysis of Shallow Foundations I. M. Smith 167 2 Numerical Analysis of Deep Foundations 187 I. M. Smith CONTENTS 3 Finite Element Analysis of Coupled Deformation and Fluid Flow in Porous Media 203 Ranbir S. Sandhu 4 Finite Elements and Slope Stability 229 D. J. Naylor CHAPTER III - MATHEMATICAL PROGRAMMING METHODS 245 1 Plastic Analysis in Geomechanics by Mathematical Programming John Muhr 247 2 Optimization Methods for Parametric Identification of Geotechnical Systems G. Maier and G. Gioda 273 3 Embankments and Slopes by Mathematical Programming J. B. Martins 305 CHAPTER IV - BOUNDARY ELEMENT TECHNIQUES 335 1 Fundamentals of Boundary Elements C. A. Brebbia 337 2 Boundary Elements in Groundwater Flow Problems L. C. Wrobel and C. A. Brebbia 355 3 Boundary Element Formulation to Solve No-Tension Problems in Geomechanics W. S. Venturini and C. A. Brebbia 375 4 Elastoplastic Analysis Using Boundary Elements J. C. F. Telles and C. A.

List of Participants xi Lecture Program xv CHAPTER I - FUNDAMENTALS 1 Field Equations E. R. Arantes e Oliveira 3 2 Basic Formulation of Static and Dynamic Behaviour of Soil and Other Porous Media O. C. Zienkiewicz 39 3 Generalized Plasticity and Some Models for Geomechanics O. C. Zienkiewicz 57 4 Constitutive Equations for Soil Media Jean H. Proevost 79 5 Constitutive Modeling and Soil-Structure Interaction C. S. Desai 103 6 Rock Mass Behaviour and Its Mathematical Modelling K. Kovayi 145 CHAPTER II - FINITE ELEMENTS TECHNIQUES 165 1 Numerical Analysis of Shallow Foundations I. M. Smith 167 2 Numerical Analysis of Deep Foundations 187 I. M. Smith CONTENTS 3 Finite Element Analysis of Coupled Deformation and Fluid Flow in Porous Media 203 Ranbir S. Sandhu 4 Finite Elements and Slope Stability 229 D. J. Naylor CHAPTER III - MATHEMATICAL PROGRAMMING METHODS 245 1 Plastic Analysis in Geomechanics by Mathematical Programming John Muhr 247 2 Optimization Methods for Parametric Identification of Geotechnical Systems G. Maier and G. Gioda 273 3 Embankments and Slopes by Mathematical Programming J. B. Martins 305 CHAPTER IV - BOUNDARY ELEMENT TECHNIQUES 335 1 Fundamentals of Boundary Elements C. A. Brebbia 337 2 Boundary Elements in Groundwater Flow Problems L. C. Wrobel and C. A. Brebbia 355 3 Boundary Element Formulation to Solve No-Tension Problems in Geomechanics W. S. Venturini and C. A. Brebbia 375 4 Elastoplastic Analysis Using Boundary Elements J. C. F. Telles and C. A.

213,99 €

199,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9789400978973

Medium: Buch

ISBN: 978-94-009-7897-3

Verlag: Springer Netherlands

Erscheinungstermin: 12.10.2011

Sprache(n): Englisch

Auflage: Softcover Nachdruck of the original 1. Auflage 1982

Serie: Nato Science Series C:

Produktform: Kartoniert

Gewicht: 908 g

Seiten: 589

Format (B x H): 155 x 235 mm

