

INTERNATIONAL CENTRE FOR MECHANICAL SCIENCES

COURSES AND LECTURES - No. 311



NUMERICAL METHODS  
AND  
CONSTITUTIVE MODELLING  
IN GEOMECHANICS

EDITED BY

C.S. DESAI

UNIVERSITY OF ARIZONA

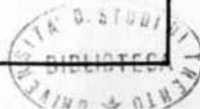
G. GIODA

UNIVERSITY OF UDINE  
AND  
POLITECNICO DI MILANO

SPRINGER - VERLAG



WIEN - NEW YORK



## CONTENTS

	Page
Preface	
Modelling and testing: Implementation of numerical models and their application in practice by <i>C.S. Desai</i> .....	1
Mechanics of partially saturated porous media by <i>B.A. Schrefler, L. Simoni, Li Xikui and O.C. Zienkiewicz</i> .....	1 6 9
Dynamic analysis of saturated non linear media by <i>D. Aubry, H. Modaressi</i> .....	2 1 1
Implementation of modern constitutive laws and analysis of field problems by <i>I.M. Smith</i> .....	2 3 7
Numerical modelling of tunnels by <i>G. Swoboda</i> .....	2 7 7
Some applications of mathematical programming in geomechanics by <i>G. Gioda</i> .....	3 1 9
Numerical analysis for the interpretation of field measurements in geomechanics by <i>S. Sakurai</i> .....	3 5 1