CONTENTS

SECTION 1: FLOW THROUGH POROUS MEDIA	
Multisplitting and Domain Decomposition Techniques Applied to Free Surface Flow Through Porous Media J.C. Bruch, Jr.	3
Application of B-Spline Boundary Elements to Groundwater Flow Problems J.J.S.P. Cabral, L.C. Wrobel	21
Domain Decomposition for Free Boundary Seepage C.A. Papadopoulos, KP. Wang, J.M. Sloss, J.C. Bruch, Jr.	37
Spreadsheet Solution for Transient Fluid Flow in a Porous Media with a Moving Drainage Boundary D.J. Kerkes	49
Water Table Aquifers and Finite Element Method: Analysis and Presentation of a Case Study A. Dassargues	63
SECTION 2: WAVE PROPAGATION	
Wave Motion and Overturning Induced by Moving Bodies: Application to Slender Ship Wave Resistance S.T. Grilli	75
The Modelling of Extreme Gravity Waves: An Approach towards a Numerical Wave Channel C. Haack, P. Gravert, V. Schlegel	91
Time-Domain Simulation of Second-Order Wave Diffraction Around Structures M. Isaacson, K.F. Cheung	105
Shallow Water Waves R.B. Guenther, J.A. Crow, F.H. Helfenstein	121
Numerical Calculation of Surface Waves V.R. Kogan, V.V. Kuznetsov	127



SECTION 3: CAVITATIONAL FLOW

A Numerical Approach for Modelling Cavitating Flows M.S. Ingber, C.E. Hailey	145
Boundary Element Simulation of Axisymmetric Cavity Flow Problems $L.C.$ Wrobel	161
Cavitation Effects in Journal Bearing having a Big Radial Clearance K. Kryniski	173
Numerical Study of Cavitational Flows A.G. Terentiev, K.E. Afanasiev	185
SECTION 4: FREE SURFACE FLOW	
Free Surface Flow with Surface Tension S. Räsänen	197
Dam-Break Wave Routing by Shock Fitting Method F.C.B. Mascarenhas, R.C. Vieira da Silva	209
The Surface Marker Method S. Chen, D.B. Johnson, P.E. Raad	223
Development of Conveyance Routing M. Karmegam, V. Rangapathy, S. Haribabu	235
Solution of Problem of Unknown Boundary in Free Surface Flow Calculations K. Kosorin	249
The Free Surface Flow Induced by a Submerged Source or Sink from a Three-Layer Fluid X. Wen, D.B. Ingham	261
Free Surface Flow Formed by a Slot Suction X. Wen, D.B. Ingham	277
A Numerical Method for the Gravity Flow with Multiple Free Surfaces Z.F. Yang, G.Q. Chen	293
Two Open Boundary Conditions for Nonlinear Free Surface Flows S. Jagannathan	309

325
341
359
367
383
399
421
437