Use of measured and interpolated cross-sections in hydraulic river modelling p. 3
Two-dimensional, multi-grid, viscous, free-surface flow calculation p. 13
A comprehensive unsteady depth-averaged model with orthogonal curvilinear coordinate system p. 23
Real time wave propagation simulation: model implementation for the Tagus River p. 35
A numerical study of wind-induced flow in the Gulf of Thermaikos using a refined two-dimensional boundary-fitted circulation model p. 45
Software dedicated to dam-break wave simulation and their validation in the framework of an IAHR working group p. 57
Computing dam-break flood wave propagation in non prismatic channels p. 69
Use of maximum entropy flow patterns in water distribution network design p. 81
The water supply network analysis tool KANET p. 91
New methodologies for optimal operation of water distribution systems for water quality purposes p. 101
Capacity reliability and rehabilitation of deteriorated water distribution systems p. 111
The numerical Green's function technique for boundary value problems in networks p. 121
Calibration of water distribution network models using genetic algorithms p. 131
On solving water distribution network design problems with stochastic search optimization techniques p. 141
Simulation and optimisation of the waste water flow in urban sewer network p. 151
Study and interpretation of the cavitation in a low pressure loop system equipped with water hammer control device p. 161
Analysis of pressure distribution coefficient on steps under hydraulic jump conditions in sloping stilling basins p. 175
Detention pond design to mitigate down stream erosion p. 185
Water surface profiles and scour analysis for a river reach with multiple bridge proposals p. 195
One-dimensional unsteady flow computation in channels with floodplains p. 205
Water profile computation in compound channels p. 215
Mathematical model of training river bed deformations p. 225
CFD - a useful tool in spillway capacity determination p. 237
AQUAVITAE - a software tool for the hydraulic design and analysis of wastewater treatment works p. 247
Hydraulic computational advances in the design of small hydropower plants p. 257
A numerical simulation of summer circulation for Monterey Bay p. 269
A finite element method for 1D and 2D shallow water p. 279
A parametric study of wind wave spectrum representations for shallow water p. 293
Simulation of the sea breeze on the central U.S. California coast p. 307
A reinforcement learning model for the operation of conjunctive use schemes p. 319
Optimal design of water distribution networks: a computer-aided decision support tool p. 331
Object-oriented building of a river network model for transient flow p. 341
Application of desktop GIS for decision support in groundwater management p. 351
Proposed water management system for the Great Man-made River Project p. 361
Simulating transformation inflow-outflow phenomena in technical hydrology by linear time-invariant models p. 383
An approach for integrating fuzzy rule system in hydrological modeling p. 395
Performance evaluation of hydro power reservoir p. 405
Stochastic response of storage function runoff model to mutually dependent rainfall inputs p. 413
Risk based water resources management p. 427
Oueme Bridge, hydraulic study: flooding risk and stability assessment using MIKE 21 p. 437
Numerical study of evacuation system for overland flood flow due to storm surge p. 447
Prediction of runoff and establishment of flood control system in the urban area of Tokyo p. 457
Combined use of genetic algorithms and boundary elements in aquifer restoration problems p. 469
Modelling and simulation of flow in an alluvial aquifer in a semi-arid region of Brazil p. 479
Drainage of landfill cap systems p. 489
Modelling of pumping from heterogeneous unsaturated-saturated porous media p. 499
Dupuit-Forchheimer formulation of a transport finite element model: application to remediation of a shallow, unconfined aquifer p. 509
CAMP: a configurable graphic user interface for three-dimensional flow and transport in variably saturated porous media p. 521
Modelling of saline intrusion in a long sea outfall p. 531
Temporary remedial treatment of contaminated groundwater p. 543
A numerical procedure for the solution of oscillatory turbulent boundary layer flow by control-volume approach p. 557
Numerical simulation of laminar flow behind a backward-facing step using a viscous-splitting vortex algorithm p. 567
A numerical hybrid model for the solution of Boussinesq-type equations p. 577
An application of the numerical Green's function technique to advection-diffusion contaminant transport in water supply networks p. 587
Tensorial definition of the eddy viscosity in large eddy simulation of turbulent flows p. 597
Index of Authors p. 607
Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.