CONTENTS

xi Preface

1 On a Homogeneous Algorithm for a Monotone Complementarity Problem with Nonlinear Equality Constraints
Erling D. Andersen and Yinyu Ye

12 On the Existence of Solutions to Complementarity Formulations of Contact Problems with Friction
Mihai Anitescu, James F. Cremer, and Florian A. Potra

22 The Extended Linear Complementarity Problem and Its Applications in the Max-Plus Algebra
Bart De Schutter and Bart De Moor

40 Crash Techniques for Large-Scale Complementarity Problems
Steven P. Dirkse and Michael C. Ferris

62 Noncooperative Games in Networks; Stability and Sensitivity of Equilibria
Igor V. Evstigneev and Sjur D. Flåm

76 A Semismooth Newton Method for Variational Inequalities: The Case of Box Constraints
Francisco Facchinei, Andreas Fischer, and Christian Kanzow

91 Minimizing and Stationary Sequences of Merit Functions for Complementarity Problems and Variational Inequalities
Masao Fukushima and Jong-Shi Pang

105 Smoothing of Mixed Complementarity Problems
Steven A. Gabriel and Jorge J. Moré

117 On the Pseudo-Lipschitzian Behavior of the Inverse of a Piecewise Affine Function
M. Seetharama Gowda and Roman Sznajder

132 Steady Sliding and Linear Complementarity
Anders Klarbring

148 A Nonsmooth Approach to Optimization Problems with Equilibrium Constraints
Michal Kočvara and Jiří V. Outrata

165 Overlapping Block Methods for Obstacle Problems with Convection-Diffusion Operators
Yu. A. Kuznetsov, P. Neittaanmäki, and P. Tarvainen

181 A Merit Function and a Newton-Type Method for Symmetric Linear Complementarity Problems
Wu Li

204 A New Class of Merit Functions for the Nonlinear Complementarity Problem
Zhi-Quan Luo and Paul Tseng

226 The Ill-Posed Linear Complementarity Problem
O. L. Mangasarian

234 Equilibria with Infinitely Many Differentiated Classes of Customers
P. Marcotte and D. L. Zhu

259 Least Elements and the Minimal Rank Matrices
Mehran Mesbahi and George P. Papavassilopoulos

267 Numerical Methods Based on the L.C.P. for the Treatment of Nonconvex Inequality Problems in Mechanics
E.S. Mistakidis and P. D. Panagiotopoulos

284 Linear Complementarity and Discounted Polystochastic Game When One Player Controls Transitions
S.R. Mohan, S.K. Neogy, and T. Parthasarathy

295 A Subgradient Method for Contact Structural Optimization
Michael Patriksson and Joakim Petersson

315 A Truncated Newton Interior-Point Algorithm for the Solution of a Multicommodity Spatial Equilibrium Model
Luís Portugal, Luís Fernandes, and Joaquim Júdice

345 Superlinear Convergence of an Interior-Point Method for Monotone Variational Inequalities
Daniel Ralph and Stephen J. Wright

386 An Infeasible-Interior-Point Algorithm for Solving Mixed Complementarity Problems
Evangelia M. Simantiraki and David F. Shanno

405 A Comparative Analysis of Two Minimum-Norm Projective Dynamics and Their Relationship to Variational Inequalities
Tony E. Smith, Terry L. Friesz, David H. Bernstein, and Zhong-Gui Suo

425 Dynamics, Friction, and Complementarity Problems
D. E. Stewart and J. C. Trinkle

440 Lipschitzian Matrices Are Nondegenerate *INS*-Matrices
Richard E. Stone

452 A Computable Generalized Hessian of the D-Gap Function and Newton-Type Methods for Variational Inequality Problems
Defeng Sun, Masao Fukushima, and Liqun Qi