

# Contents

H.T. BANKS, K. ITO AND C. WANG: Exponentially stable approximations of weakly damped wave equations	1
H.T. BANKS, F. KAPPEL AND C. WANG: Weak solutions and differentiability for size structured population models	35
JOHN A. BURNS AND SUNGKWON KANG: A stabilization problem for Burger's equation with unbounded control and observation	51
OVIDIU CÂRJĂ: The minimal time function for the heat equation with boundary control	73
ZHIMING CHEN AND K.-H. HOFFMANN: Numerical solutions of the optimal control problem governed by a phase field model	79
DOINA CIORANESCU, PATRIZIA DONATO AND ENRIKE ZUAZUA: Strong convergence on the exact boundary controllability of the wave equation in perforated domains	99
H.O. FATTORINI: Relaxed controls in infinite dimensional control systems	115
PIOTR GRABOWSKI: On a problem of the best $L^2$ -approximation with exponential sums	129
KENNETH B. HANNSGEN AND ROBERT L. WHEELER: A representation formula for one-dimensional viscoelasticity with stabilizing boundary feedback	139
J. HASLINGER AND P.D. PANAGIOTOPOULOS: Optimal control of hemivariational inequalities. Continuous case	149

M. HEINKENSCHLOSS, M. LAUMEN AND E.W. SACHS:	
Gauss-Newton methods with grid refinement	161
AKIRA ICHIKAWA:	
Steady-state solutions in tracking problems	175
JAAN JANNO:	
On an inverse problem for determining the creep function with a given boundary data close to a singular function	187
JONG UHN KIM:	
A unique continuation property of a beam equation with vari- able coefficients	197
FUMIO KOJIMA:	
A computational method for thermal tomography by time de- pendent boundary integral equation method	207
A.B. KURZHANSKI AND A.YU. KHAPALOV:	
The state estimation problem for parabolic systems	219
JOHN E. LAGNESE:	
Modelling and stabilization of nonlinear plates	247
MICHAEL PEDERSEN:	
Symbolic boundary calculus and feedback operators	265
I.G. ROSEN AND POORNIMA RAGHU:	
Approximation in the identification of degenerate distributed parameter systems: Generalized Galerkin schemes and non- conforming elements	273
TOMÁŠ ROUBÍČEK:	
Optimization of a Stefan problem by nonsmooth methods	295
S.S. SRITHARAN:	
Dynamic programming of the Navier-Stokes equations	303
XUE-CHENG TAI AND PEKKA NEITTAANMÄKI:	
On the numerical solution of the distributed parameter identi- fication problem	317

DANIEL TATARU:	
On the equivalence between the dynamic programming principle and the dynamic programming equation	331
D. TIBA, P. NEITTAANMÄKI AND R. MÄKINEN:	
Controllability-type properties for elliptic systems and applications	341
G. VAINIKKO:	
Parameter choice in Tikhonov regularization of ill-posed extremal problems	355
GEORGE WEISS:	
Two conjectures on the admissibility of control operators	367
MASAHIRO YAMAMOTO:	
Feedback stabilization for nondissipative hyperbolic equations	379