

CONTENTS

Stochastic Bilinear Partial Differential Equations	1
A. V. Balakrishnan, University of California, Los Angeles, California	
Time-Varying Bilinear Systems	44
A. Isidori, A. Ruberti, Università di Roma, Rome, Italy	
On the Reachable Set for Bilinear Systems	54
R. Brockett, Harvard University, Cambridge, Massachusetts	
Algebraic Realization Theory of Two-Dimensional Filters	64
E. Fornasini, G. Marchesini, Università di Padova, Padova, Italy	
Controllability of Bilinear Systems	83
G-S. J. Cheng, T. J. Tarn, D. L. Elliott, Washington University, St. Louis, Missouri	
Periodic Control of Singularly Perturbed Systems	101
G. Guardabassi, A. Locatelli, Politecnico di Milano, Milan, Italy	
Estimation for Bilinear Stochastic Systems	116
A. Willsky, Steven I. Marcus, Massachusetts Institute of Technology, Cambridge, Massachusetts	
A Probabilistic Approach to Identifiability	138
G. Picci, Università di Padova, Padova, Italy	
Some Examples of Dynamic Bilinear Models in Economics	163
M. Aoki, University of Illinois, Urbana, Illinois	
Bilinearity and Sensitivity in Macroeconomy	170
P. d'Alessandro, Università di Roma, Rome, Italy	

Variable Parameter Structures in Technology Assessment and Land Use	200
H. Koenig, Michigan State University, East Lansing, Michigan	
An Optimization Study of the Pollution Subsystem of the World Dynamics Model .	206
L. Mariani, Università di Padova, Padova, Italy	
B. Nicoletti, Università di Napoli, Naples, Italy	
A Basis for Variable Structure Models in Human Biology	233
R. Mohler, Oregon State University, Corvallis, Oregon	
The Immune Response as a Variable Structure System	244
C. Bruni, M. Giovenco, G. Koch, R. Strom, Università di Roma, Rome, Italy	
Nonlinear Systems in Models for Enzyme Cascades	265
H. T. Banks, R. P. Miech, D. J. Zinberg, Brown University, Providence, Rhode Island	
Mathematical Model of the Peripheral Nervous Acoustical System: Applications to Diagnosis and Prostheses	278
E. Biondi, F. Grandori, Politecnico di Milano, Milan, Italy	
A Systems Analysis of Cerebral Dehydration	299
R. Bell, University of California, Davis, California	