

TABLE OF CONTENTS

	Page
Contributors to this volume	v
Papers presented at a previous Belgo-Israeli Colloquium	vi
Preface	viii
Acknowledgments	ix
Chapter 0. Mathematical programs for activity analysis: introduction and survey PAUL VAN MOESEKE	1
PART I. MATHEMATICAL PROGRAMMING	
Chapter 1. Constrained maximization and efficient allocation PAUL VAN MOESEKE	9
Chapter 2. Generalized convex functions with applications to non- linear programming MORDECAI AVRIEL and ISRAEL ZANG	23
Chapter 3. A general convergence theorem and its application to a penalty algorithm FRANS VAN WINCKEL	35
Chapter 4. Signomial geometric programming: determining the global minimum URY PASSY	45
*Chapter 5. Sensitivity analysis in geometric programming M. RIJCKAERT	61
Chapter 6. Groups, bounds, and cuts for integer programming problems LAURENCE A. WOLSEY	73
*Chapter 7. A finite algorithm for homogeneous portfolio pro- gramming JACQUES H. DRÈZE and PAUL VAN MOESEKE	79

* Starred chapters pertain to stochastic systems.

PART II. SPATIAL PROGRAMMING: NETWORKS

Chapter 8. Planar network-flow algorithms GUY T. de GHELLINCK	95
*Chapter 9. Transportation networks with random arc capacities PIERRE DOULLIEZ and E. JAMOULLE	121
Chapter 10. An optimality condition for minimal-cost multicommodity flows IRINEL DRAGAN	135
Chapter 11. An algorithm for the location of central facilities PIERRE HANSEN and LEON KAUFMAN	141
Chapter 12. Computer methods for school schedules M. ROUBENS	159
*Chapter 13. Probabilistic models for a data multiplexer MICHAEL RUBINOVITCH	169

PART III. INTERTEMPORAL PROGRAMMING: DYNAMICS

Chapter 14. Production planning over time: some generalizations JEAN-FRANÇOIS RICHARD	181
*Chapter 15. On models of economic growth with random elements TAMAR DAR, ASSAF RAZIN and JOSEPH A. YAHAV	213
Chapter 16. Optimal design of a rotating disk ETIENNE LOUTE	229
*Chapter 17. Responsive pricing in queuing systems MAURICE G. MARCHAND	241
*Chapter 18. On Markov success chains JOZEF L. TEUGELS	251
*Chapter 19. Practical use of decision trees JACQUES FEDERWISCH	265
*Chapter 20. Bacteriology laboratory costing: a universal model KATRIEL WILD	279
Index of references	297
Subject index	301

* Starred chapters pertain to stochastic systems.