

CONTENTS

Foreword	ix
Applications of Combinatorics and Graph Theory to the Biological and Social Sciences: Seven Fundamental Ideas	1
<i>Fred S. Roberts</i>	
Social Welfare and Aggregation Procedures: Combinatorial and Algorithmic Aspects	39
<i>Jean-Pierre Barthélemy</i>	
Consecutive One's Properties for Matrices and Graphs Including Variable Diagonal Entries	75
<i>Margaret B. Cozzens and N.V.R. Mahadev</i>	
Probabilistic Knowledge Spaces: A Review	95
<i>Jean-Claude Falmagne</i>	
Uniqueness in Finite Measurement	103
<i>Peter C. Fishburn and Fred S. Roberts</i>	
Conceptual Scaling	139
<i>Bernhard Ganter and Rudolf Wille</i>	
The Micro-Macro Connection: Exact Structure and Process	169
<i>Eugene C. Johnsen</i>	
Sign-Patterns and Stability	203
<i>Victor Klee</i>	
Food Webs, Competition Graphs, Competition-Common Enemy Graphs and Niche Graphs	221
<i>J. Richard Lundgren</i>	
Qualitatively Stable Matrices and Convergent Matrices	245
<i>John S. Maybee</i>	
Tree Structures in Immunology	259
<i>J.K. Percus</i>	

Meaningless Statements, Matching Experiments, and Colored Digraphs (Applications of Graph Theory and Combinatorics to the Theory of Measurement)	277
<i>Fred S. Roberts</i>	
Combinatorial Aspects of Enzyme Kinetics	295
<i>Peter H. Sellers</i>	
Spatial Models of Power and Voting Outcomes	315
<i>Philip D. Straffin, Jr.</i>	
Some Mathematics for DNA Restriction Mapping	337
<i>Michael S. Waterman</i>	