## **Tools for Thinking**

## Modelling in Management Science

Third Edition

## **Michael Pidd**

Department of Management Science, Lancaster University Management School, UK

## Contents

Preface		ix
Ackn	nowledgements	xi
PAR	RT I MODELLING IN MANAGEMENT SCIENCE	1
1	Models as convenient worlds	3
2	Management Science - making sense of strategic vision	21
3	Problems, problems	43
4	Some principles of modelling	63
PAF	RT II INTERPRETIVE MODELLING – SOFT MANAGEMENT SCIENCE	83
5	Soft systems methodology	89
6	Cognitive mapping, SODA and journey-making	109
7	System dynamics	135
8	Decision analysis	157
PAF	PART III MATHEMATICAL AND LOGICAL MODELLING	
9	Optimization modelling – linear programming	187
10	Computer simulation – visual interactive modelling and Monte Carlo	
	simulation	211
11	Heuristic search	241
PAF	RT IV MODEL ASSESSMENT AND VALIDATION	263
12	Model assessment and validation	265
Inde.	x	285