

# Contents

|                                                                                                                               |     |
|-------------------------------------------------------------------------------------------------------------------------------|-----|
| Preface .....                                                                                                                 | ix  |
| S.P. Sethi's Curriculum Vitae .....                                                                                           | xi  |
|                                                                                                                               |     |
| 1. TCP-AQM Interaction: Periodic Optimization via Linear Programming<br>K.E. AVRACHENKOV, L.D. FINLAY, AND V.G. GAITSGORY ... | 1   |
| 2. Explicit Solutions of Linear Quadratic Differential Games<br>A. BENSOUSSAN .....                                           | 19  |
| 3. Extended Generators of Markov Processes and Applications<br>T.R. BIELECKI AND E. FRANKIEWICZ .....                         | 35  |
| 4. Control of Manufacturing Systems with Delayed Inspection<br>and Limited Capacity<br>E.K. BOUKAS .....                      | 55  |
| 5. Admission Control in the Presence of Priorities:<br>A Sample Path Approach<br>F. CHEN AND V.G. KULKARNI .....              | 73  |
| 6. Some Bilinear Stochastic Equations with a Fractional<br>Brownian Motion<br>T.E. DUNCAN .....                               | 97  |
| 7. Two Types of Risk<br>J.A. FILAR AND B. KANG .....                                                                          | 109 |
| 8. Optimal Production Policy in a Stochastic Manufacturing System<br>Y. GUO AND H. ZHANG .....                                | 141 |
| 9. A Stochastic Control Approach to Optimal Climate Policies<br>A. HAURIE .....                                               | 159 |
| 10. Characterization of Just in Time Sequencing via Apportionment<br>J. JÓZEFOWSKA, L. JÓZEFOWSKI AND W. KUBIAK .....         | 175 |

|                                                                                                                                                   |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 11. Linear Stochastic Equations in a Hilbert Space with<br>a Fractional Brownian Motion<br>B. PASIK-DUNCAN, T.E. DUNCAN, AND B. MASLOWSKI . . . . | 201 |
| 12. Hedging Options with Transaction Costs<br>W. SUO . . . . .                                                                                    | 223 |
| 13. Supply Portfolio Selection and Execution with Demand<br>Information Updates<br>H. WANG AND H. YAN . . . . .                                   | 249 |
| 14. A Regime-Switching Model for European Options<br>D.D. YAO, Q. ZHANG, AND X.Y. ZHOU . . . . .                                                  | 281 |
| 15. Pricing American Put Options Using Stochastic<br>Optimization Methods<br>G. YIN, J.W. WANG, Q. ZHANG, Y.J. LIU, AND R.H. LIU .                | 301 |
| 16. Optimal Portfolio Application with Double-Uniform<br>Jump Model<br>Z. ZHU AND F.B. HANSON . . . . .                                           | 331 |
| Index . . . . .                                                                                                                                   | 359 |