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6.4 Other Statistics Inequalities6.5 Prediction Theory: Association Measures; 6.6 Antieigenmatrices; Commentary; 6.7 Exercises; 7. Quantum Trigonometry; Perspective; 7.1 Bell-Wigner-CHSH Inequalities; 7.2 Trigonometric Quantum Spin Identities; 7.3 Quantum Computing: Phase Issues; 7.4 Penrose Twistors; 7.5 Elementary Particles; 7.6 Trigonometry of Quantum States; Commentary; 7.7 Exercises; 8. Financial Instruments; Perspective; 8.1 Some Remarks on Mathematical Finance; 8.2 Quantos: Currency Options; 8.3 Multi-Asset Pricing: Spread Options; 8.4 Portfolio Rebalancing
8.5 American Options with Random Volatility8.6 Risk Measures for Incomplete Markets; Commentary; 8.7 Exercises; 9. Other Directions; Perspective; 9.1 Operators; 9.2 Angles; 9.3 Optimization; 9.4 Equalities; 9.5 Geometry; 9.6 Applications; Commentary; 9.7 Exercises; Appendix A Linear Algebra; A.1 Matrix Analysis; A.2 Operator Theory; Appendix B Hints and Answers to Exercises; Chapter 1.; Chapter 2.; Chapter 3.; Chapter 4.; Chapter 5.; Chapter 6.; Chapter 7.; Chapter 8.; Chapter 9.; Bibliography; Index

Sommario/riassunto

Karl Gustafson is the creater of the theory of antieigenvalue analysis. Its applications spread through fields as diverse as numerical analysis, wavelets, statistics, quantum mechanics, and finance. Antieigenvalue analysis, with its operator trigonometry, is a unifying language which enables new and deeper geometrical understanding of essentially every result in operator theory and matrix theory, together with their applications. This book will open up its methods to a wide range of specialists.