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Subjective Probability Forecasts; 6.8 Exercises; CHAPTER 7. Forecast Verification; 7.1 Background; 7.2 Nonprobabilistic Forecasts of Discrete Predictands; 7.3 Nonprobabilistic Forecasts of Continuous Predictands; 7.4 Probability Forecasts of Discrete Predictands; 7.5 Probability Forecasts for Continuous Predictands
7.6 Nonprobabilistic Forecasts of Fields 7.7 Verification of Ensemble Forecasts; 7.8 Verification Based on Economic Value; 7.9 Sampling and Inference for Verification Statistics; 7.10 Exercises; CHAPTER 8. Time Series; 8.1 Background; 8.2 Time Domain-I. Discrete Data; 8.3 Time Domain-II. Continuous Data; 8.4 Frequency Domain-I. Harmonic Analysis; 8.5 Frequency Domain-II. Spectral Analysis; 8.6 Exercises; PART III: Multivariate Statistics; CHAPTER 9. Matrix Algebra and Random Matrices; 9.1 Background to Multivariate Statistics; 9.2 Multivariate Distance; 9.3 Matrix Algebra Review
9.4 Random Vectors and Matrices 9.5 Exercises; CHAPTER 10. The Multivariate Normal (MVN) Distribution; 10.1 Definition of the MVN; 10.2 Four Handy Properties of the MVN; 10.3 Assessing Multinormality; 10.4 Simulation from the Multivariate Normal Distribution; 10.5 Inferences about a Multinormal Mean Vector; 10.6 Exercises; CHAPTER 11. Principal Component (EOF) Analysis; 11.1 Basics of Principal Component Analysis; 11.2 Application of PCA to Geophysical Fields; 11.3 Truncation of the Principal Components; 11.4 Sampling Properties of the Eigenvalues and Eigenvectors
11.5 Rotation of the Eigenvectors

Sommario/riassunto

Praise for the First Edition: "I recommend this book, without hesitation, as either a reference or course text...Wilks' excellent book provides a thorough base in applied statistical methods for atmospheric sciences." --BAMS (Bulletin of the American Meteorological Society) Fundamentally, statistics is concerned with managing data and making inferences and forecasts in the face of uncertainty. It should not be surprising, therefore, that statistical methods have a key role to play in the atmospheric sciences. It is the uncertainty in atmospheric behavior that continues to move res
