
Description:
A valuable new edition of the complete guide to modern statistical computing

Computational Statistics, Second Edition continues to serve as a comprehensive guide to the theory and practice of statistical computing. Like its predecessor, the new edition spans a broad range of modern and classic topics including optimization, integration, Monte Carlo methods, bootstrapping, density estimation and smoothing. Algorithms are explained both conceptually and by using step-by-step descriptions, and are illustrated with detailed examples and exercises.

Important features of this Second Edition include:
- Examples based on real-world applications from various fields including genetics, ecology, economics, network systems, biology, and medicine
- Explanations of how computational methods are important components of major statistical approaches such as Bayesian models, linear and generalized linear models, random effects models, survival models, and hidden Markov models
- Expanded coverage of Markov chain Monte Carlo methods
- New topics such as sequential sampling methods, particle filters, derivative free optimization, bootstrapping dependent data, and adaptive MCMC
- New exercises and examples that help readers develop the skills needed to apply computational methods to a broad array of statistical problems
- A companion website offering datasets and code in the R software package

Computational Statistics, Second Edition is perfect for advanced undergraduate or graduate courses in statistical computing and as a reference for practicing statisticians.

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