

《自助法及其应用》

图书基本信息

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前言

The publication in 1979 of Bradley Efron's first article on bootstrap methods was a major event in Statistics, at once synthesizing some of the earlier resampling ideas and establishing a new framework for simulation-based statistical analysis. The idea of replacing complicated and often inaccurate approximations to biases, variances, and other measures of uncertainty by computer simulations caught the imagination of both theoretical researchers and Users of statistical methods. Theoreticians sharpened their pencils and set about establishing mathematical conditions under which the idea could work. Once they had overcome their initial skepticism, applied workers sat down at their terminals and began to amass empirical evidence that the bootstrap often did work better than traditional methods. The early trickle of Papers quickly became a torrent, with new additions to the literature appearing every month and it was hard to see when would be a good moment to try to chart the waters. Then the organizers of COMPSTAT 92 invited us to present a course on the topic, and shortly afterwards we began to write this book. We decided to try to write a balanced account of resampling methods, to include basic aspects of the theory which underpinned the methods, and to show as many applications as we could in order to illustrate the full potential of the methods—warts and all. We quickly realized that in order for us and others to understand and use the bootstrap, we would need suitable software, and producing it led us further towards a practically oriented treatment. Our view was cemented by two further developments: the appearance of two excellent books, one by Peter Hall on the asymptotic theory and the other on basic methods by Bradley Efron and Robert Tibshirani; and the chance to give further courses that included practicals. Our experience has been that hands-on computing is essential in coming to grips with resampling ideas, so we have included practicals in this book as well as more theoretical problems. As the book expanded, we realized that a fully comprehensive treatment was beyond us, and that certain topics could be given only a cursory treatment because too little is known about them. So it is that the reader will find only brief accounts of bootstrap methods for hierarchical data, missing data problems, model selection, robust estimation, nonparametric regression, and complex data. But we do try to point the more ambitious reader in the right direction.

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内容概要

《自助法及其应用》内容简介：We decided to try to write a balanced account of resampling methods, to include basic aspects of the theory which underpinned the methods, and to show as many applications as we could in order to illustrate the fun potential of the methods -warts and all. We quickly realized that in order for us and others to understand and use the bootstrap, we would need suitable software, and producing it led us further towards a practically oriented treatment. Our view was cemented by two further developments: the appearance of two excellent books, one by Peter Hall on the asymptotic theory and the other on basic methods by Bradley Efron and Robert Tibshirani; and the chance to give further courses that included practicals. Our experience has been that hands-on computing is essential in coming to grips with resampling ideas, so we have included practicals in this book as well as more theoretical problems.

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书籍目录

Preface 1 Introduction 2 The Basic Bootstraps 2.1 Introduction 2.2 Parametric Simulation 2.3 Nonparametric Simulation 2.4 Simple Confidence Intervals 2.5 Reducing Error 2.6 Statistical Issues 2.7 Nonparametric Approximations for Variance and Bias 2.8 Subsampling Methods 2.9 Bibliographic Notes 2.10 Problems 2.11 Practicals Further Ideas 3.1 Introduction 3.2 Several Samples 3.3 Semiparametric Models 3.4 Smooth Estimates of F 3.5 Censoring 3.6 Missing Data 3.7 Finite Population Sampling 3.8 Hierarchical Data 3.9 Bootstrapping the Bootstrap 3.10 Bootstrap Diagnostics 3.11 Choice of Estimator from the Data 3.12 Bibliographic Notes 3.13 Problems 3.14 Practicals 4 Tests 4.1 Introduction 4.2 Resampling for Parametric Tests 4.3 Nonparametric Permutation Tests 4.4 Nonparametric Bootstrap Tests 4.5 Adjusted P-values 4.6 Estimating Properties of Tests 4.7 Bibliographic Notes 4.8 Problems 4.9 Practicals 5 Confidence Intervals 5.1 Introduction 5.2 Basic Confidence Limit Methods 5.3 Percentile Methods 5.4 Theoretical Comparison of Methods 5.5 Inversion of Significance Tests 5.6 Double Bootstrap Methods 5.7 Empirical Comparison of Bootstrap Methods 5.8 Multiparameter Methods 5.9 Conditional Confidence Regions 5.10 Prediction 5.11 Bibliographic Notes 5.12 Problems 5.13 Practicals 6 Linear Regression 6.1 introduction 6.2 Least Squares Linear Regression 6.3 Multiple Linear Regression 6.4 Aggregate Prediction Error and Variable Selection 6.5 Robust Regression 6.6 Bibliographic Notes 6.7 Problems 6.8 Practicals 7 Farther Topics in Regression 7.1 Introduction 7.2 Generalized Linear Models 7.3 Survival Data 7.4 Other Nonlinear Models 7.5 Misclassification Error 7.6 Nonparametric Regression 7.7 Bibliographic Notes 7.8 Problems 7.9 Practicals 8 Complex Dependence 8.1 Introduction 8.2 Time Series 8.3 Point Processes 8.4 Bibliographic Notes 8.5 Problems 8.6 Practicals 9 Improved Calculation 9.1 Introduction 9.2 Balanced Bootstraps 9.3 Control Methods 9.4 Importance Resampling 9.5 Saddlepoint Approximation 9.6 Bibliographic Notes 9.7 Problems 9.8 Practicals 10 Semiparametric Likelihood Inference 10.1 Likelihood 10.2 Multinomial-Based Likelihoods 10.3 Bootstrap Likelihood 10.4 Likelihood Based on Confidence Sets 10.5 Bayesian Bootstraps 10.6 Bibliographic Notes 10.7 Problems 10.8 Practicals 11 Computer Implementation 11.1 Introduction 11.2 Basic Bootstraps 11.3 Further Ideas 11.4 Tests 11.5 Confidence Intervals 11.6 Linear Regression 11.7 Further Topics in Regression 11.8 Time Series 11.9 Improved Simulation 11.10 Semiparametric Likelihoods Appendix A. Cumulant Calculations Bibliography Name Index Example index Subject index

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精彩短评

- 1、 章节分得很细，英文原著，很值得一看
- 2、 专业指导书英文版，比在美国买便宜多了
- 3、 内容很多, 适合统计/计算机工作者拿来当工具书参考用. 理论讲得比较飘, 例子非常多但细节忽略很明显. 对统计理论和数学水平本身要求也不算低, 感觉不适合拿来入门. 知道个大概看Efron的就够

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