

<<时间序列与预测>>

图书基本信息

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前言

This book is aimed at the reader who wishes to gain a working knowledge of timeseries and forecasting methods as applied in economics, engineering and the naturaland social sciences. Unlike our earlier book, Time Series: Theory and Methods, re-ferred to in the text as TSTM, this one requires only a knowledge of basic calculus,matrix algebra and elementary statistics at the level (for example) of Mendenhall,Wackerly and Scheaffer (1990) . It is intended for upper-level undergraduate studentsand beginning graduate students.The emphasis is on methods and the analysis of data sets. The student versionof the time series package ITSM2000, enabling the reader to reproduce most of thecalculations in the text (and to analyze further data sets of the reader's own choosing) ,is included on the CD-ROM~~which accompanies the book. The data sets used in thebook are also included. The package requires an IBM-compatible PC operating underWindows 95, NT version 4.0, or a later version of either of these operating systems.The program ITSM can be run directly from the CD-ROM or installed on a hard diskas described at the beginning of Appendix D, where a detailed introduction to thepackage is provided.Very little prior familiarity with computing is required in order to use the computerpackage. Detailed instructions for its use are found in the on-line help files whichare accessed, when the program ITSM is running, by selecting the menu optionHelp>Contents and selecting the topic of interest. Under the heading Data youwill find information concerning the data sets stored on the CD-ROM. The book canalso be used in conjunction with other computer packages for handling time series.Chapter 14 of the book by Venables and Ripley (1994) describes how to performmany of the calculations using S-plus.There are numerous problems at the end of each chapter, many of which involveuse of the programs to study the data sets provided.To make the underlying theory accessible to a wider audience, we have statedsome of the key mathematical results without proof, but have attempted to ensurethat the logical structure of the development is otherwise complete. (References toproofs are provided for the interested reader.)

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内容概要

《时间序列与预测(英文版)(第2版)》是时间序列领域的名著。

特色在于注重实际应用。

深浅适中，适用面广，示例和习题丰富，有微积分、线性代数和统计学基础知识即可阅读。

书中全面介绍了经济、工程、自然科学和社会科学中所用的时间序列和预测方法，核心内容是平稳过程、ARMA模型和ARIMA模型、多元时间序列和状态空间模型、谱分析。

书中配有时间序列软件包ITSM2000学生版，更加方便读者学习。

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作者简介

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科罗拉多州立大学统计系荣休教授。

他是Journal of Time Series Analysis副主编，并和Richard A . Davis合作开发了时间序列软件包ITSM2000。

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科罗拉多州立大学统计系教授，1997年至2005年担任该系的系主任。

1998年荣获计量经济学Koopmans奖。

他是Stochastic Processes and Their Applications , Annals of Applied Probability等期刊编委，是Proceedings of the American Mathematics Society的统计学领域主编。

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媒体关注与评论

“这本书就像一书很好的科幻小说，让你爱不释手。

.....趣味无穷的例于，丰富得让你难以置信。

.....无论是自学，还是课堂教学、本书都是一本理想的教材。

强烈推荐！

”——SIAM书评“本书强调实际经验，配套软件也起纠厂很好的作用。

.....祝贺作者，他们让这门课程变得容易而有趣。

阅读本书是一种享受，极力推荐。

这是本领域最好的入门教材。

”——国际统计学会(ISI)书评

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编辑推荐

《时间序列与预测(英文版第2版)》全面介绍了经济学、工程学、自然科学和社会科学中所用的时间序列和预测方法，核心内容是平稳过程、ARMA过程、ARIMA过程、多变量时间序列、状态空间模型和谱分析。

另外，《时间序列与预测(英文版第2版)》还介绍了Burg算法、Hannan—Riissanen算法、EM算法、结构模型、指数平滑、转移函数模型、非线性模型、连续时间模型和长记忆模型等，每章的末尾都有大量习题，供读者巩固所学概念和方法，《时间序列与预测(英文版第2版)》强调方法和数据集的分析，配有时间序列软件包ITSM2000的学生版。

《时间序列与预测(英文版第2版)》适合作为各专业学生时间序列入门课程的教材，也适合其他有兴趣的科研工作者阅读。

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