

<<应用线性回归模型>>

图书基本信息

书名：<<应用线性回归模型>>

13位ISBN编号：9787040163803

10位ISBN编号：7040163802

出版时间：2005-2

出版时间：蓝色畅想

作者：库特纳

页数：701

字数：1000000

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

## <<应用线性回归模型>>

### 内容概要

本书从McGrawHill出版公司引进，共分三部分，内容包括：第一部分：简单线性回归：一元预测函数的线性回归，回归影响和相关分析，诊断及补救措施，即时推断和回归分析的其它几个专题，简单线性回归分析中的矩阵方法；第二部分：多元线性回归：多元回归，多元回归2，定性回归模型和定量预测，建立线性回归模型：模型选择及有效性，建立线性回归模型：诊断，建立线性回归模型：补救措施，时间序列数据中的自相关；第三部分：非线性回归：非线性回归和神经网络方法。本书篇幅适中，例子多涉及各个应用领域，在介绍统计思想方面比较突出，光盘数据丰富。本书适用于高等院校统计学专业和理工科各专业本科生和研究生作为教材使用。

<<应用线性回归模型>>

书籍目录

PART ONE SIMPLE LINEAR REGRESSION. Chapter 1 Linear Regression with One Predictor Variable

1.1 Relations between Variables 1.2 Regression Models and Their Uses

1.3 Simple Linear Regression Model with Distribution of Error Terms Unspecified 1.4 Data for Regression Analysis

1.5 Overview of Steps in Regression Analysis 1.6 Estimation of Regression Function

1.7 Estimation of Error Terms Variance 2 1.8 Normal Error Regression Model Chapter 2

Inferences in Regression and Correlation Analysis 2.1 Inferences Concerning/ 1

2.2 Inferences Concerning/ 0 2.3 Some Considerations on Making Inferences Concerning/50 and 1

2.4 Interval Estimation of  $E\{Y_h\}$  2.5 Prediction of New Observation 2.6 Confidence Band for Regression Line

2.7 Analysis of Variance Approach 2.8 General Linear Test Approach

2.9 Descriptive Measures of Linear Association between X and Y

2.10 Considerations in Applying Regression Analysis 2.11 Normal Correlation Models Chapter 3

Diagnostics and Remedial Measures 3.1 Diagnostics for Predictor Variable 3.2 Residuals

3.3 Diagnostics for Residuals 3.4 Overview of Tests Involving Residuals 3.5 Correlation Test for Normality

3.6 Tests for Constancy of Error 3.7 F Test for Lack of Fit 3.8 Overview of Remedial Measures

3.9 Transformations 3.10 Exploration of Shape of Regression Function

3.11 Case Example--Plutonium Measurement Chapter 4

Simultaneous Inferences and Other Topics in Regression Analysis 4.1 Joint Estimation of  $\theta_0$  and  $\theta_1$

4.2 Simultaneous Estimation of Mean Responses 4.3 Simultaneous Prediction Intervals for New Observations

4.4 Regression through Origin 4.5 Effects of Measurement Errors 4.6 Inverse Predictions

4.7 Choice of X Levels Chapter 5 Matrix Approach to Simple Linear Regression Analysis 5.1 Matrices

5.2 Matrix Addition and Subtraction 5.3 Matrix Multiplication 5.4 Special Types of Matrices

5.5 Linear Dependence and Rank of Matrix 5.6 Inverse of a Matrix 5.7 Some Basic Results for Matrices

5.8 Random Vectors and Matrices 5.9 Simple Linear Regression Model in Matrix Terms

5.10 Least Squares Estimation 5.11 Fitted Values and Residuals 5.12 Analysis of Variance Results

5.13 Inferences in Regression Analysis PART TWO MULTIPLE LINEAR REGRESSION

Chapter 6 Multiple Regression I Chapter 7 Multiple Regression II Chapter 8

Regression Models for Quantitative and Qualitative Predictors Chapter 9

Building the Regression Model I: Model Selection and Validation Chapter 10

Building the Regression Model II: Diagnostics Chapter 11 Building the Regression Model III: Remedial Measures

Chapter 12 Autocorrelation in Time Series Data PART THREE NONLINEAR REGRESSION Chapter 13

Introduction to Nonlinear Regression and Neural Networks Chapter 14

Logistic Regression, Poisson Regression, and Generalized Linear Models Appendix A

Some Basic Results in Probability and Statistics Appendix B Tables Appendix C Data Sets Appendix D

Selected Bibliography Index

## &lt;&lt;应用线性回归模型&gt;&gt;

## 章节摘录

The correlation test for normality described in Chapter 3 carries forward directly to multiple regression. The expected values of the ordered residuals under normality are calculated according to ( 3.6 ) , and the coefficient of correlation between the residuals and the expected values under normality is then obtained. Table B.6 is employed to assess whether or not the magnitude of the correlation coefficient supports the reasonableness of the normality assumption. The Brown-Forsythe test statistic ( 3.9 ) for assessing the constancy of the error variance can be used readily in multiple regression when the error variance increases or decreases with one of the predictor variables. To conduct the Brown-Forsythe test, we divide the data set into two groups , as for simple linear regression , where one group consists of cases when the level of the predictor variable is relatively low and the other group consists of cases where the level of the predictor variable is relatively high. The Brown-Forsythe test proceeds as for simple linear regression. The Breusch-Pagan test ( 3.11 ) for constancy of the error variance in multiple regression is carried out exactly the same as for simple linear regression when the error variance increases or decreases with one of the predictor variables.

2. Research and Analysis ( including site visit )

A. Base Plan Preparation  
B. Site Inventory ( Data Collection ) and Analysis ( Evaluation )  
C. Client Interview  
D. Program Development

<<应用线性回归模型>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>