

<<微分方程及其应用>>

图书基本信息

书名：<<微分方程及其应用>>

13位ISBN编号：9787506233910

10位ISBN编号：7506233916

出版时间：1998-3

出版公司：世界图书出版公司

作者：, M.Braun, , 编

页数：578

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>

<<微分方程及其应用>>

内容概要

Mathematics is playing an ever more important role in the physical and biological sciences, provoking a blurring of boundaries between scientific disciplines and a resurgence of interest in the modern as well as the classical techniques of applied mathematics. This renewal of interest, both in research and teaching, has led to the establishment of the series: Texts in Applied Mathematics (TAM). The development of new courses is a natural consequence of a high level of excitement on the research frontier as newer techniques, such as numerical and symbolic computer systems, dynamical systems, and chaos, mix with and reinforce the traditional methods of applied mathematics. Thus, the purpose of this textbook series is to meet the current and future needs of these advances and encourage the teaching of new courses.

<<微分方程及其应用>>

书籍目录

Chapter 1 First-order differential equations 1.1 Introduction 1.2 First-order linear differential equations 1.3 The Van Meegeren art forgeries 1.4 Separable equations 1.5 Population models 1.6 The spread of technological innovations 1.7 An atomic waste disposal problem 1.8 The dynamics of tumor growth, mixing problems, and orthogonal trajectories 1.9 Exact equations, and why we cannot solve very many differential equations 1.10 The existence-uniqueness theorem; Picard iteration 1.11 Finding roots of equations by iteration 1.11.1 Newton's method 1.12 Difference equations, and how to compute the interest due on your student loans 1.13 Numerical approximations; Euler's method 1.13.1 Error analysis for Euler's method 1.14 The three term Taylor series method 1.15 An improved Euler method 1.16 The Runge-Kutta method 1.17 What to do in practice

Chapter 2 Second-order linear differential equations 2.1 Algebraic properties of solutions 2.2 Linear equations with constant coefficients 2.3 The nonhomogeneous equation 2.4 The method of variation of parameters 2.5 the method of judicious guessing.....

Chapter 3 Systems of differential equations

Chapter 4 Qualitative theory of differential equations

Chapter 5 Separation of variables and Fourier series

Chapter 6 Sturm-Liouville boundary value problems

Appendix A Some simple facts concerning functions of several variables

Appendix B Sequences and series

Appendix C C Programs

Answers to odd-numbered exercises

Index

<<微分方程及其应用>>

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>