

<<偏微分方程>>

图书基本信息

书名：<<偏微分方程>>

13位ISBN编号：9787510035173

10位ISBN编号：7510035171

出版时间：2011-6

出版人：世界图书出版公司

作者：Friedrich Sauvigny

页数：437

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>

<<偏微分方程>>

内容概要

《偏微分方程(第1卷)》是一部两卷集的偏微分方程教材。多变量椭圆，抛物和双曲方程是研究的主要对象，解决了PDE和多变量方法之间的关系。第一卷中集中研究了流形上的积分和微分，泛函解析基础，映射的Brouwer度，广义解析函数和圆周同调这些议题，在这一卷中通过积分表示论解决偏微分方程问题，第二卷中讲述函数解析解法。书中各章的独立性较强，有一定偏微分方程基本知识的读者可以独立阅读各章。

<<偏微分方程>>

作者简介

作者：(德国)索维尼 (Friedrich Sauvigny)

<<偏微分方程>>

书籍目录

- i differentiation and integration on manifolds
 - § 1 the weierstra approximation theorem
 - § 2 parameter-invariant integrals and differential forms
 - § 3 the exterior derivative of differential forms
 - § 4 the stokes integral theorem for manifolds
 - § 5 the integral theorems of gaub and stokes
 - § 6 curvilinear integrals
 - § 7 the lemma of poineare
 - § 8 co-derivatives and the laplace-beltrami operator
 - § 9 some historical notices to chapter i
- ii foundations of functional analysis
 - § 1 daniell's integral with examples
 - § 2 extension of daniell's integral to lebesgue's integral
 - § 3 measurable sets
 - § 4 measurable functions
 - § 5 riemann's and lebesgue's integral on rectangles
 - § 6 banach and hilbert spaces
 - § 7 the lebesgue spaces $L_p(X)$
 - § 8 bounded linear functionals on $L_p(X)$ and weak convergence
 - § 9 some historical notices to chapter ii
- iii brouwer's degree of mapping with geometric applications
 - § 1 the winding number
 - § 2 the degree of mapping in R^n
 - § 3 geometric existence theorems
 - § 4 the index of a mapping
 - § 5 the product theorem
 - § 6 theorems of jordan-brouwer
- iv generalized analytic functions
 - § 1 the cauchy-riemann differential equation
 - § 2 holomorphic functions in C^n
 - § 3 geometric behavior of holomorphic functions in C
 - § 4 isolated singularities and the general residue theorem
 - § 5 the inhomogeneous cauchy-riemann differential equation
 - § 6 pseudoholomorphic functions
 - § 7 conformal mappings
 - § 8 boundary behavior of conformal mappings
 - § 9 some historical notices to chapter iv
- v potential theory and spherical harmonics
 - § 1 poisson's differential equation in R^n
 - § 2 poisson's integral formula with applications

<<偏微分方程>>

- § 3 dirichlet's problem for the laplace equation in \mathbb{R}^n
- § 4 theory of spherical harmonics: fourier series
- § 5 theory of spherical harmonics in n variables
- vi linear partial differential equations in \mathbb{R}^n
- § 1 the maximum principle for elliptic differential equations
- § 2 quasilinear elliptic differential equations
- § 3 the heat equation
- § 4 characteristic surfaces
- § 5 the wave equation in \mathbb{R}^n for $n = 1, 3, 2$
- § 6 the wave equation in \mathbb{R}^n for $n \geq 2$
- § 7 the inhomogeneous wave equation and an initial-boundary-value problem
- § 8 classification, transformation and reduction of partial differential equations
- § 9 some historical notices to the chapters v and vi
- references
- index

<<偏微分方程>>

章节摘录

版权页：插图：

<<偏微分方程>>

编辑推荐

《偏微分方程(第1卷)(英文)》由世界图书出版公司出版。

<<偏微分方程>>

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>