

<<泛函分析导论>>

图书基本信息

书名：<<泛函分析导论>>

13位ISBN编号：9787030222268

10位ISBN编号：7030222261

出版时间：2009-1

出版时间：科学出版社

作者：Yisheng Huang

页数：229

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>

## 内容概要

Functional analysis is primarily concerned with infinite-dimensional linear (vector) spaces, mainly function spaces whose "points" are functions, and mappings between them, usually called operators or, functionals if the range is on the real line or in the complex plane. It was invented and developed in the last years of the nineteenth century and the first few decades of the twentieth century. During the early period of its development, the original purpose of functional analysis was to use a framework which allows the study of differential and integral equations to be considered in the same formulation (cf. [6]). Later, functional analysis developed rapidly as in-depth study and interconnection on spectral theory of ordinary and partial differential equations, potential theory, Fourier expansions, and applied mathematical techniques, especially, on the influence of mathematical physics and quantum mechanics.

## 书籍目录

Preface  
List of Symbols  
Chapter 1 Metric Spaces 1.1 Preliminaries 1.2 Definitions and Examples 1.3  
Convergence in a Metric Space 1.4 Sets in a Metric Space 1.5 Complete Metric Spaces 1.6 Continuous  
Mappings on Metric Spaces 1.7 Compact Metric Spaces 1.8 The Contraction Mapping Principle  
Chapter 2 Normed Linear Spaces. Banach Spaces 2.1 Review of Linear Spaces 2.2 Norm in a Linear Space 2.3  
Examples of Normed Linear Spaces 2.4 Finite Dimensional Normed Linear Spaces 2.5 Linear Subspaces of  
Normed Linear Spaces 2.6 Quotient Spaces 2.7 The Weierstrass Approximation Theorem  
Chapter 3 Inner Product Spaces. Hilbert Spaces 3.1 Inner Products 3.2 Orthogonality 3.3 Orthonormal Systems 3.4  
Fourier Series  
Chapter 4 Linear Operators. Fundamental Theorems 4.1 Continuous Linear Operators and  
Functionals 4.2 Spaces of Bounded Linear Operators and Dual Spaces 4.3 The Banach-Steinhaus Theorem  
4.4 Inverses of Operators. The Banach Theorem 4.5 The Hahn-Banach Theorem 4.6 Strong and Weak  
Convergence  
Chapter 5 Linear Operators on Hilbert Spaces 5.1 Adjoint Operators. The Lax-Milgram Theorem  
5.2 Spectral Theorem for Self-adjoint Compact Operators  
Bibliography  
Index

<<泛函分析导论>>

章节摘录

插图：

<<泛函分析导论>>

编辑推荐

《泛函分析导论(英文版)》由科学出版社出版。

<<泛函分析导论>>

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>