



图书基本信息

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内容概要

本书旨在介绍大量运用于线性分析中的不等式,并且详细介绍它们的具体应用。 本书以柯西不等式开头,grothendieck不等式结束,中间用许多不等式串成一个完整的篇幅,如 ,loomiswhitney不等式、最大值不等式、hardy

和

hilbert不等式、超收缩和拉格朗日索伯列夫不等、beckner以及等等。 这些不等式可以用来研究函数空间的性质,它们之间的线性算子,以及绝对和算子。 书中拥有许多完整和标准的结果,提供了许多应用,如勒贝格分解定理和勒贝格密度定理、希尔伯特 变换和其他奇异积分算子、鞅收敛定理、特征值分布、lidskii积公式、mercer定理和littlewood 4/3定理。

本书由(英)加林著。





作者简介

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章节摘录

版权页: 插图: Many of the inequalities that we shall establish originally concern finitesequences and finite sums. We then extend them to infinite sequences and infinite sums, and to functions and integrals, and it is these more general results that are useful in applications. Although the applications can be useful in simple settings — concerning the Riemann integral of a continuous function, for example—the extensions areusually made by a limiting process. For this reason we need to work in themore general setting of measure theory, where appropriate limit theoremshold. We give a brief account of what we need to know; the details of the theory will not be needed, although it is hoped that the results that weeventually establish will encourage the reader to master them. If you arenot familiar with measure theory, read through this chapter quickly, and then come back to it when you find that the need arises. Suppose that is a set. A measure ascribes a size to some of the subsetsof

. It turns out that we usually cannot do this in a sensible way for all the subsets of , and have to restrict attention to the measurable subsets of . These are the 'good' subsets of , and include all the sets that we meet in practice. The collection of measurable sets has a rich enough structure that we can carry out countable is a collection of subsets of a set limiting operations . A —field which satisfies (i) if (Ai) is a sequence in then Ui =1Ai , and (ii) if A then the complement . Thus (iii) if \A -measurable sets; if it is clear (Ai) is a sequence in then i =1Ai . The sets in are called is, they are simply called the measurable sets. what





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