<<巴拿赫空间中的概率论>>

图书基本信息

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内容概要

《巴拿赫空间中的概率论(英文)》是一部全面讲述巴纳赫空间概率论的完美教程，作为概率论的一个分支，该理论已经得到了很好的发展。
等周，测度和随机过程这些是学习巴纳赫空间概率论的基础技巧工具，书中全面介绍了巴纳赫空间中概率论的主要概念（积分，向量值随机变量的极限定理和随机变量的连续性）以及它们和巴纳赫空间几何的关系。
《巴拿赫空间中的概率论(英文)》旨在从基础到重要结果将该理论的方方面面阐述清楚，测度和抽象随机过程技巧是《巴拿赫空间中的概率论(英文)》的重点，并且深入讨论了概率工具和经典巴纳赫理论。

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章节摘录

版权页： The moment condition IE(‖ X ‖ 2/LL ‖ X ‖) < ∞ is of course necessary inthis statement since it is not comparable to the tail behaviorlimt→t2P{ ‖ X ‖ > t} = 0 necessary for the CLT. Despite this general sat-isfactory result, the question of the implication CLT → LIL is not solved forall that. Theorem 10.12 indicates that the spaces in which random variablessatisfying the CLT also satisfy the LIL are exactly those in which the CLTimplies the integrability property IE(‖ X ‖ 2/LL ‖ X ‖) < eo. This is of coursethe case for cotype 2 spaces but the characterization of the CLT in Lp-spacesshows that Lp with p > 2 does not satisfy this property. An argument similarto the one used for Theorem 10.11, but this time with Theorem 9.16 insteadof Dvoretzky's theorem, then shows that the spaces satisfying CLT = LIL arenecessarily of cotype 2 + ε for every ε > 0. But a final characterization is stillto be obtained. 10.3 A Small Ball Criterion for the Central Limit Theorem In this last paragraph, we develop a criterion for the CLT which, while cer-tainly somewhat difficult to verify in practice, involves in its elaboration sev-eral interesting arguments and ideas developed throughout this book. Theresult therefore presents some interest from a theoretical point of view. Theidea of its proof can be used further for an almost sure randomized version ofthe CLT. Recall that we deal in all this chapter with a separable Banach space B.We noticed, prior to Theorem 3.3, that for a Gaussian Radon random variableG, with values in B each ball centered at the origin has a positive mass for thedistribution of G. Therefore, it follows that if X is a Borel random variablesatisfying the CLT in B, for every ε > 0.

编辑推荐

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