

图书基本信息

书名：<<维纳-温特纳遍历定理WIENER WINTNER ERGODIC THEOREMS>>

13位ISBN编号：9789810244392

10位ISBN编号：9810244398

出版时间：2003-12

出版时间：Penguin

作者：Assani, Idris

页数：213

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

The Wiener Wintner ergodic theorem is a strengthening of Birkhoff pointwise ergodic theorem. Announced by N Wiener and A Wintner, this theorem has introduced the study of a general phenomenon in ergodic theory in which samplings are "good" for an uncountable number of systems. We study the rate of convergence in the uniform version of this theorem and what we call Wiener Wintner dynamical systems and prove for these systems two pointwise results: the a.e. double recurrence theorem and the a.e. continuity of the fractional rotated ergodic Hilbert transform. Some extensions of the Wiener Wintner ergodic theorem are also given.

书籍目录

Chapter 1 The Mean and Pointwise Ergodic Theorems 1.1 The mean ergodic theorem 1.2 The pointwise ergodic theorem 1.2.1 Birkhoff's ergodic theorem through the maximal inequality 1.2.2 Birkhoff's ergodic theorem with no maximal inequality 1.2.3 Maximal inequalities, dominated ergodic theorem and transference 1.2.4 The pointwise ergodic theorem through a variational inequality

Chapter 2 Wiener Wintner Pointwise Ergodic Theorems 2.1 Introduction 2.2 Ergodic transformations, Kronecker factors, spectral measures 2.3 Wiener Wintner theorem through the affinity of measures 2.3.1 Preliminaries on sequences having a correlation and the affinity 2.3.2 First proof of the Wiener Wintner ergodic theorem 2.4 Wiener Wintner theorem through a simple inequality 2.4.1 A simple variant of Van der Corput's inequality 2.4.2 J. Bourgain's uniform Wiener Wintner ergodic theorem 2.5 Wiener Wintner theorem through disjointness 2.5.1 Disjointness and generic points 2.5.2 The third proof 2.6 Topological Wiener Wintner ergodic theorem 2.6.1 Topological dynamical systems 2.6.2 Wiener Wintner results for uniquely ergodic systems 2.7 Remarks and questions 2.7.1 Ergodic decomposition 2.7.2 Comments 2.7.3 Remarks

Chapter 3 Universal Weights for Dynamical Systems 3.1 Introduction 3.2 Independent variables as universal weights for the pointwise ergodic theorem 3.2.1 Independent variables as universal weights for the pointwise convergence in L^2 3.2.2 Independent random variables as universal weights for the pointwise convergence in L_p

Chapter 4 J. Bourgain's Return Times Theorem 4.1 Introduction 4.2 Preliminaries 4.3 A proof of the return times theorem 4.3.1 Proof for $f x$ 4.3.2 Proof for $f x$ 4.3.2.1 Continuity of the spectral measure of f 4.3.2.2 The finite range assumption 4.3.2.3 Part I 4.3.2.4 Part II 4.3.2.5 Part III 4.3.2.6 Part IV 4.3.2.7 Part V 4.3.2.8 The contradiction 4.3.2.9 Extending beyond the finite range assumption

Chapter 5 Extensions of the Return Times Theorem

Chapter 6 Speed of Convergence in the Uniform Wiener Wintner Theorem

Chapter 7 Weak Wiener Wintner Dynamical Systems

Chapter 8 Polynomial Wiener Wintner Ergodic Theorem

Chapter 9 Extension to More General Operators

Bibliography

Index

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>