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	Autore	Muldowney P (Patrick), <1946->
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	Nota di contenuto	A Modern Theory of Random Variation: With Applications in Stochastic Calculus, Financial Mathematics, and Feynman Integration; Contents; Preface; Symbols; 1 Prologue; 1.1 About This Book; 1.2 About the Concepts; 1.3 About the Notation; 1.4 Riemann, Stieltjes, and Burkill Integrals; 1.5 The -Complete Integrals; 1.6 Riemann Sums in Statistical Calculation; 1.7 Random Variability; 1.8 Contingent and Elementary Forms; 1.9 Comparison With Axiomatic Theory; 1.10 What Is Probability?; 1.11 Joint Variability; 1.12 Independence; 1.13 Stochastic Processes; 2 Introduction 2.1 Riemann Sums in Integration2.2 The -Complete Integrals in Domain]0,1]; 2.3 Divisibility of the Domain]0,1]; 2.4 Fundamental Theorem of

Calculus; 2.5 What Is Integrability?; 2.6 Riemann Sums and Random Variability; 2.7 How to Integrate a Function; 2.8 Extension of the Lebesgue Integral; 2.9 Riemann Sums in Basic Probability; 2.10 Variation and Outer Measure; 2.11 Outer Measure and Variation in [0,1]; 2.12 The Henstock Lemma; 2.13 Unbounded Sample Spaces; 2.14 Cauchy Extension of the Riemann Integral; 2.15 Integrability on]0,(infinity)[; 2.16 ""Negative Probability""
2.17 Henstock Integration in Rn2.18 Conclusion; 3 Infinite-Dimensional Integration; 3.1 Elements of Infinite-Dimensional Domain; 3.2 Partitions of RT; 3.3 Regular Partitions of RT; 3.4 -Fine Partially Regular Partitions; 3.5 Binary Partitions of RT; 3.6 Riemann Sums in RT; 3.7 Integrands in RT; 3.8 Definition of the Integral in RT; 3.9 Integrating Functions in RT; 4 Theory of the Integral; 4.1 The Henstock Integral; 4.2 Gauges for RT; 4.3 Another Integration System in RT; 4.4 Validation of Gauges in RT; 4.5 The Burkill-Complete Integral in RT; 4.6 Basic Properties of the Integral
5.10 Introduction to Central Limit Theorem5.11 Proof of Central Limit Theorem; 5.12 Probability Symbols; 5.13 Measurability and Probability; 5.14 The Calculus of Probabilities; 6 Gaussian Integrals; 6.1 Fresnel's Integral; 6.2 Evaluation of Fresnel's Integral; 6.3 Fresnel's Integral in Finite Dimensions; 6.4 Fresnel Distribution Function in Rn; 6.5 Infinite-Dimensional Fresnel Integral; 6.6 Integrability on RT; 6.7 The Fresnel Function Is VBG*; 6.8 Incremental Fresnel Integral; 6.9 Fresnel Continuity Properties; 7 Brownian Motion; 7.1 c-Brownian Motion; 7.2 Brownian Motion With Drift
7.3 Geometric Brownian Motion

Sommario/riassunto

"This book presents a self-contained study of the Riemann approach to the theory of random variation and assumes only some familiarity with probability or statistical analysis, basic Riemann integration, and mathematical proofs. The author focuses on non-absolute convergence in conjunction with random variation"--