Record Nr. UNINA9910527560703321 Autore Kulik Alexei Titolo Ergodic behavior of Markov processes: with applications to limit theorems / / Alexei Kulik Pubbl/distr/stampa Berlin, [Germany];; Boston, [Massachusetts]:,: De Gruyter,, 2018 ©2018 **ISBN** 3-11-045871-3 Descrizione fisica 1 online resource (268 pages) De Gruyter Studies in Mathematics, , 01790986; ; Volume 67 Collana Disciplina 519.233 Soggetti Markov processes Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Frontmatter -- Preface -- Contents -- Introduction -- Part I: Ergodic Rates for Markov Chains and Processes -- 1. Markov Chains with Discrete State Spaces -- 2. General Markov Chains: Ergodicity in Total Variation -- 3. Markov Processes with Continuous Time -- 4. WeakErgodicRates -- Part II: Limit Theorems -- 5. The Law of Large Numbers and the Central Limit Theorem -- 6. Functional Limit Theorems -- Bibliography -- Index Sommario/riassunto The general topic of this book is the ergodic behavior of Markov processes. A detailed introduction to methods for proving ergodicity and upper bounds for ergodic rates is presented in the first part of the book, with the focus put on weak ergodic rates, typical for Markov systems with complicated structure. The second part is devoted to the application of these methods to limit theorems for functionals of Markov processes. The book is aimed at a wide audience with a background in probability and measure theory. Some knowledge of stochastic processes and stochastic differential equations helps in a deeper understanding of specific examples. ContentsPart I: Ergodic Rates for Markov Chains and ProcessesMarkov Chains with Discrete State SpacesGeneral Markov Chains: Ergodicity in Total VariationMarkovProcesseswithContinuousTimeWeak Ergodic Rates Part

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TheoremFunctional Limit Theorems