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| 1. Record Nr. | UNINA9910964507903321 |
| Titolo | Records and branching processes // Mohammad Ahsanullah and George P. Yanev, editors |
| Pubbl/distr/stampa | New York, : Nova Science Publishers, c2008 |
| ISBN | 1-61470-735-9 |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (187 p.) |
| Altri autori (Persone) | AhsanullahM (Mohammad) YanevGeorge P |
| Disciplina | 519.2/4 |
| Soggetti | Distribution (Probability theory) Branching processes Mathematical statistics |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Intro -- RECORDS AND BRANCHING PROCESSES -- RECORDS AND BRANCHING PROCESSES -- CONTENTS -- PREFACE -- CONTRIBUTORS AND AFFILIATION -- Chapter 2CHARACTERIZATIONS OF DISTRIBUTIONS VIABIVARIATE REGRESSION ON DIFFERENCES OFRECORDS -- Abstract -- 1 Introduction -- 2 Results and Proofs -- 2.1 Main result -- Acknowledgment -- References -- Chapter 3REGENERATIVE BRANCHING PROCESSES -- Abstract -- 1 Introduction -- 2 General Definition -- 3 BGW Processes with State-dependent Immigration -- 4 Continuous Time Markov Processes -- 5 Age-Dependent Branching Processes -- 6 Alternating Regenerative Processes -- 7 Continuous-State Branching Processes -- 8 Branching Processes with Migration -- 9 Time Non-Homogeneous State-Dependent Immigration -- 10 Concluding Remarks -- References -- Chapter 4CONDITIONAL LIMIT THEOREMSFOR CONTINUOUS TIME AND STATE BRANCHINGPROCESS -- Abstract -- 1 Introduction -- 2 The CB-Process -- 3 Attaining the Origin -- 4 The Critical Case -- 5 Stationary Measures -- 6 The Subcritical Case -- 7 The Last Large Jump -- References -- LARGE FAMILIES AND EXCEEDANCES INBRANCHING PROCESSES -- Abstract -- 1 Introduction -- 2 Exceeding a Threshold -- 2.1 Sequence of processes with common offspring distribution -- 2.2 Sequence of processes with distinct offspring distributions -- 2.3 Extended class of |

level functions for critical processes -- 2.4 Processes with immigration -- 3 Number of Highly Productive Ancestors -- 4 Large Families in Multitype Processes -- Acknowledgments -- References -- Chapter 6A REVIEW OF OFFSPRING EXTREMES IN BRANCHING PROCESSES -- Abstract -- 1 Introduction -- 2 Maximum Family Size in Simple Branching Processes -- 2.1 Subcritical Processes -- 2.2 Critical Processes -- 2.3 Supercritical Processes -- 3 Maximum Family Size in Processes with Varying Environments -- 3.1 Maxima of Arrays of Zero-Modified Geometric Variables. 3.2 Processes with Varying Geometric Environments -- 4 Maxima in Bisexual Processes -- 4.1 Max-Domain of Attraction of Bivariate Geometric Arrays -- 4.2 Bisexual Processes with Varying Geometric Environments -- 5 Maximum Score -- 5.1 Maximum Scores in Galton-Watson Processes -- 5.2 Maximum Scores in Two-Type Processes -- Acknowledgment -- References -- Chapter 7 STATISTICAL INFERENCE FOR BRANCHING PROCESSES -- Abstract -- 1 Introduction -- 2 Classical BGW Branching Processes -- 3 BGW Processes with an Increasing Random Number of Ancestors -- 3.1 Estimating the Offspring Mean when $Z_0(n) \rightarrow \infty$ a.s. -- 3.4 Lotka-Nagaev Estimators -- 3.5 Heyde Moment-Type Estimators -- 3.6 Estimating the Unknown Age of the Process -- 3.7 Conditional Least Squares Estimators -- 3.8 Censored Estimators -- 3.2 Limiting Distributions -- 3.3 Harris Estimators -- 4 BGW Processes with Immigration -- 5 Concluding Remarks and Comments -- References -- INDEX.

Sommario/riassunto

This book concerns itself with record values and branching processes as rich research areas of applied probability and statistics. Over the last few decades, numerous interesting articles on these topics appeared, dealing with theoretical problems as well as a number of new applications. The authors have co-ordinated publishing works contributed by eminent researchers from all over the world. This book presents a selection of presentations of new developments and survey papers on the subjects of record values and branching processes. It is written at intermediate level which requires knowledge of probability theory and mathematical statistics.
