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Collana	Statistics for Industry and Technology, , 2364-6241
Disciplina	519.5/46
Soggetti	Statistics Probabilities Applied mathematics Engineering mathematics Statistical Theory and Methods Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences Statistics for Life Sciences, Medicine, Health Sciences Probability Theory and Stochastic Processes Applications of Mathematics
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I: Distribution Theory and Models -- Progressive censoring: Data and models -- Progressive Type-II censoring: Distribution theory -- Further distributional results on progressive Type-II censoring -- Progressive Type-I censoring: Basic properties -- Progressive hybrid censoring: Distributions and properties -- Adaptive progressive Type-II censoring and related models -- Moments of progressively Type-II censored order statistics -- Simulation of progressively censored order statistics -- Information Measures -- Progressive Type-II censoring under non-standard conditions -- Part II: Inference -- Linear estimation in progressive Type-II censoring -- Maximum likelihood estimation in progressive Type-II censoring -- Point estimation in progressive Type-I censoring -- Progressive hybrid and adaptive censoring and related inference -- Bayesian inference for progressively Type-II censored data -- Point prediction from progressively Type-II

censored samples -- Statistical intervals for progressively Type-II censored data -- Progressive Type-I interval censored data -- Goodness-of-fit-tests in progressive Type-II censoring -- Counting and quantile processes and progressive censoring -- Nonparametric inferential issues in progressive Type-II censoring -- Part III: Applications in Survival Analysis and Reliability -- Acceptance sampling plans -- Accelerated life-testing -- Stress-strength models with progressively censored data -- Multi-sample models -- Optimal experimental designs -- Part IV: Appendices -- Appendix A: Distributions -- Appendix B: Additional demonstrative datasets -- Notation -- References -- Author index -- Subject index.

Sommario/riassunto

This monograph offers a thorough and updated guide to the theory and methods of progressive censoring, an area that has experienced tremendous growth in recent years. Progressive censoring, originally proposed in the 1950s, is an efficient method of handling samples from industrial experiments involving lifetimes of units that have either failed or censored in a progressive fashion during the life test, with many practical applications to reliability and quality. Key topics and features: Data sets from the literature as well as newly simulated data sets are used to illustrate concepts throughout the text. Emphasis on real-life applications to life testing, reliability, and quality control. Discussion of parametric and nonparametric inference. Coverage of experimental design with optimal progressive censoring. The Art of Progressive Censoring is a valuable reference for graduate students, researchers, and practitioners in applied statistics, quality control, life testing, and reliability. With its accessible style and concrete examples, the work may also be used as a textbook in advanced undergraduate or beginning graduate courses on censoring or progressive censoring, as well as a supplementary textbook for a course on ordered data.
