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Edizione	[1st ed. 2008.]
Descrizione fisica	1 online resource (556 p.)
Collana	Statistics for biology and health
Disciplina	519.536
Soggetti	Regression analysis Hazardous substances - Risk assessment
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	Background: Probability -- Background: General inference -- Background: Survival analysis -- Marginal survival -- Regression models and subject heterogeneity -- Inference: Estimating equations -- Inference: Functions of Brownian motion -- Inference: Likelihood -- Inference: Stochastic integrals -- Inference: Small samples -- Inference: Changepoint models -- Explained variation -- Explained randomness -- Survival given covariates -- Proofs of theorems, lemmas and corollaries.
Sommario/riassunto	The place in survival analysis now occupied by proportional hazards models and their generalizations is so large that it is no longer conceivable to offer a course on the subject without devoting at least half of the content to this topic alone. This book focuses on the theory and applications of a very broad class of models—proportional hazards and non-proportional hazards models, the former being viewed as a special case of the latter—which underlie modern survival analysis. Unlike other books in this area the emphasis is not on measure theoretic arguments for stochastic integrals and martingales. Instead, while inference based on counting processes and the theory of martingales is covered, much greater weight is placed on more traditional results such as the functional central limit theorem. This change in emphasis allows us in the book to devote much greater

consideration to practical issues in modeling. The implications of different models, their practical interpretation, the predictive ability of any model, model construction, and model selection as well as the whole area of mis-specified models receive a great deal of attention. The book is aimed at both those interested in theory and those interested in applications. Many examples and illustrations are provided. The required mathematical and statistical background for those relatively new to the field is carefully outlined so that the material is accessible to a broad range of levels. John O'Quigley—Director of Research at the French Institut National de la Santé et de la Recherche Médicale and Professor of Mathematics at the University of California at San Diego—has published extensively on the subject of survival analysis, both in theoretical and applied journals. He has taught and carried out collaborative research at several of the world's leading departments of mathematics and statistics including the University of Washington, the Fred Hutchinson Cancer Research Center in Seattle, Harvard University, and Lancaster University, UK.
