Record Nr. UNINA9910304132703321 Autore **Kaeding Matthias** Titolo Bayesian Analysis of Failure Time Data Using P-Splines [[electronic resource] /] / by Matthias Kaeding Wiesbaden:,: Springer Fachmedien Wiesbaden:,: Imprint: Springer Pubbl/distr/stampa Spektrum, , 2015 **ISBN** 3-658-08393-X Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (117 p.) Collana BestMasters, , 2625-3577 510 Disciplina 519.2 570285 610724 Soggetti **Probabilities** Laboratory medicine **Bioinformatics** Probability Theory and Stochastic Processes Laboratory Medicine 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. Relative Risk and Log-Location-Scale Family -- Bayesian P-Splines --Nota di contenuto Discrete Time Models -- Continuous Time Models. Sommario/riassunto Matthias Kaeding discusses Bayesian methods for analyzing discrete and continuous failure times where the effect of time and/or covariates is modeled via P-splines and additional basic function expansions. allowing the replacement of linear effects by more general functions. The MCMC methodology for these models is presented in a unified framework and applied on data sets. Among others, existing algorithms for the grouped Cox and the piecewise exponential model under interval censoring are combined with a data augmentation step for the applications. The author shows that the resulting Gibbs sampler works well for the grouped Cox and is merely adequate for the

> piecewise exponential model. Contents Relative Risk and Log-Location-Scale Family Bayesian P-Splines Discrete Time Models Continuous Time

Models Target Groups Researchers and students in the fields of

statistics, engineering, and life sciences Practitioners in the fields of reliability engineering and data analysis involved with lifetimes The Author Matthias Kaeding obtained his Master of Science degree at the University of Bamberg in Survey Statistics.