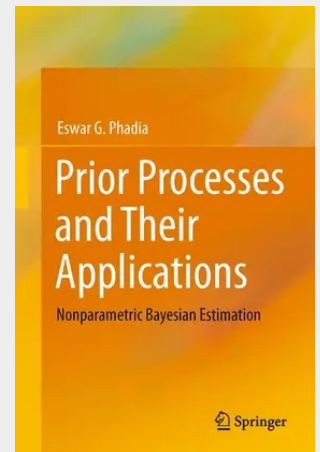


Prior Processes and Their Applications

Nonparametric Bayesian Estimation

This book presents a systematic and comprehensive treatment of various prior processes that have been developed over the last four decades in order to deal with the Bayesian approach to solving some nonparametric inference problems. Applications of these priors in various estimation problems are presented. Starting with the famous Dirichlet process and its variants, the first part describes processes neutral to the right, gamma and extended gamma, beta and beta-Stacy, tail free and Polya tree, one and two parameter Poisson-Dirichlet, the Chinese Restaurant and Indian Buffet processes, etc., and discusses their interconnection. In addition, several new processes that have appeared in the literature in recent years and which are off-shoots of the Dirichlet process are described briefly. The second part contains the Bayesian solutions to certain estimation problems pertaining to the distribution function and its functional based on complete data. Because of the conjugacy property of some of these processes, the resulting solutions are mostly in closed form. The third part treats similar problems but based on right censored data. Other applications are also included. A comprehensive list of references is provided in order to help readers explore further on their own.

This book presents a systematic and comprehensive treatment of various prior processes that have been developed over the last four decades in order to deal with the Bayesian approach to solving some nonparametric inference problems. Applications of these priors in various estimation problems are presented. Starting with the famous Dirichlet process and its variants, the first part describes processes neutral to the right, gamma and extended gamma, beta and beta-Stacy, tail free and Polya tree, one and two parameter Poisson-Dirichlet, the Chinese Restaurant and Indian Buffet processes, etc., and discusses their interconnection. In addition, several new processes that have appeared in the literature in recent years and which are off-shoots of the Dirichlet process are described briefly. The second part contains the Bayesian solutions to certain estimation problems pertaining to the distribution function and its functional based on complete data. Because of the conjugacy property of some of these processes, the resulting solutions are mostly in closed form. The third part treats similar problems but based on right censored data. Other applications are also included. A comprehensive list of references is provided in order to help readers explore further on their own.



53,49 €
49,99 € (zzgl. MwSt.)

Nicht mehr lieferbar

Artikelnummer: 9783642392795
Medium: Buch
ISBN: 978-3-642-39279-5
Verlag: Springer
Erscheinungstermin: 06.08.2013
Sprache(n): Englisch
Auflage: 2013
Produktform: Gebunden
Gewicht: 4616 g
Seiten: 207
Format (B x H): 160 x 241 mm

