Dynamical Biostatistical Models (Chapman Hall/CRC Biostatistics Series)

Daniel Commenges, Helene Jacqmin-Gadda
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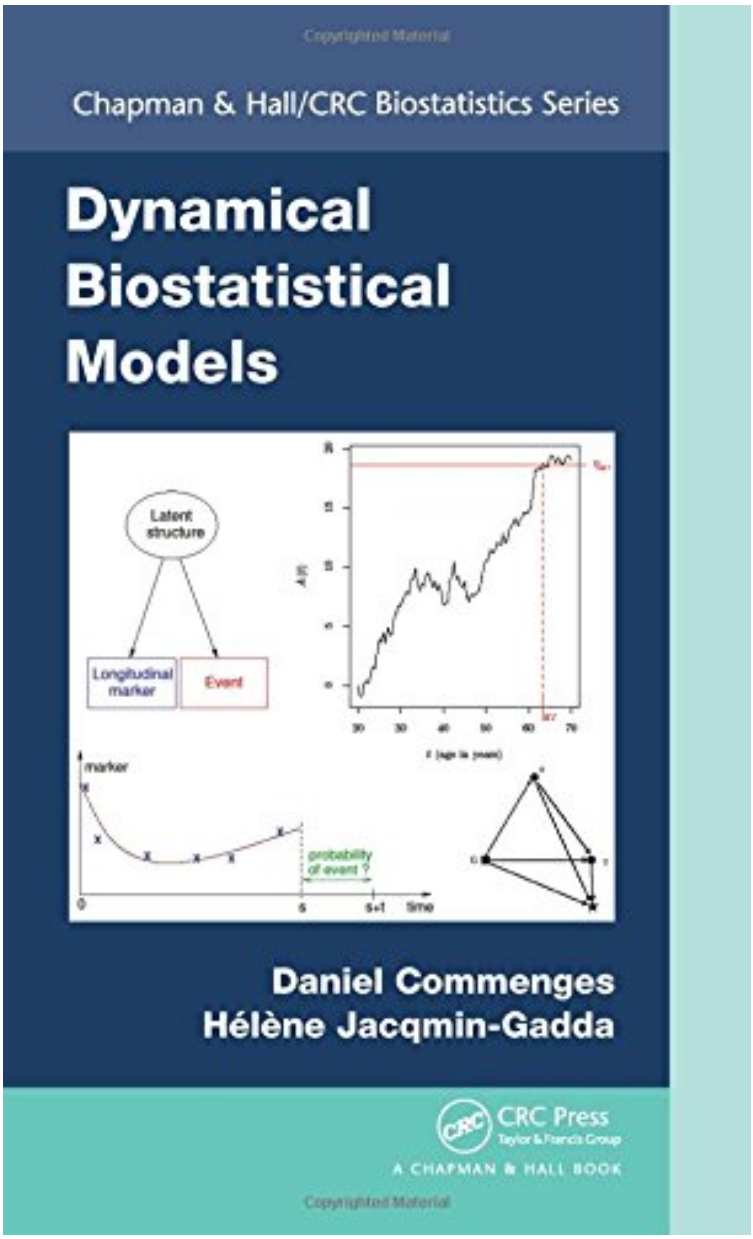

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Daniel Commenges, Helene Jacqmin-Gadda : Dynamical Biostatistical Models (Chapman Hall/CRC Biostatistics Series) before purchasing it in order to gage whether or not it would be worth my time, and all praised

Dynamical Biostatistical Models (Chapman Hall/CRC Biostatistics Series):

Dynamical Biostatistical Models presents statistical models and methods for the analysis of longitudinal data. The book focuses on models for analyzing repeated measures of quantitative and qualitative variables and events history, including survival and multistate models. Most of the advanced methods, such as multistate and joint models, can be applied using SAS or R software. The book describes advanced regression models that include the time dimension, such as mixed-effect models, survival models, multistate models, and joint models for repeated measures and time-to-event data. It also explores the possibility of unifying these models through a stochastic process point of view and introduces the dynamic approach to causal inference. Drawing on much of their own extensive research, the authors use three main examples throughout the text to illustrate epidemiological questions and methodological issues. Readers will see how each method is applied to real data and how to interpret the results.

"The properties of this book may be summarized in two words: rich and concise. . . this is a very well-written book that manages to cover a lot of ground in a remarkably succinct way. . . I can highly recommend the book."Per Kragh Andersen, International Society for Clinical Biostatistics "I think that those whose research is or will be in the area of dynamical biostatistics would benefit from having a copy on their shelves."Alice M. Richardson, Faculty of Education, Science, Technology and Mathematics, University of Canberra, Australia "This book aims at describing methods of biostatistics modeling, in particular, dynamical model approaches for statisticians, as well as serving as a textbook for postgraduate students... The balance between theory and application is appropriate for both researchers performing biostatistics modeling and for students taking graduate level courses The book is concisely written so that it covers a wide range of basic and dynamic models and modeling approaches with examples. Statisticians in the industry may feel a large part of the book too technical but can use the book for reference and may also benefit from the rich examples and R-codes, some with translation to SAS, in the appendix." Pharmaceutical Statistics "One of my favorite features of this book is that the same three examples are used throughout, and all the approaches discussed are applied to these examples. This allows readers to identify the similarities and differences of various techniques. Furthermore, it is a good way for readers to learn so-called data mining since diverse information can be mined by applying different statistical methods to the same dataset . . . I believe this book will be a successful text for graduate level courses focusing on dynamical biostatistical models that analyze time-dependent data. Its presentation of conventional methods is very effective." ~Hongjian Zhu, The University of Texas Health Science Center at Houston School of Public Health " . . . the book presents mixed effects, survival, multistate, and joint models. Furthermore, unification of these dynamical models and causal inference is also discussed. The content is organized from simple classical methods to advanced ones, only requiring familiarity of standard regression models, such as linear and logistic regression. The methods are illustrated with real epidemiological examples using SAS and R, allowing readers to see how these methods solve problems in the real world. This book brings literature together for analysis of time-dependent data, so that readers will not need to read many other books and papers for this topic." ~Biometrics, June 2017About the AuthorDaniel Commenges is emeritus research director at INSERM and founder of the Biostatistics Team at the University of Bordeaux. Dr. Commenges has published more than 200 papers and was editor of Biometrics and an associate editor of several other journals. His main research interests focus on statistical models in epidemiology and biology, applications of stochastic processes, statistical inference in dynamical models, and model selection. Hlne Jacqmin-Gadda is research director at INSERM and head of the Biostatistics Team at the University of Bordeaux. Dr. Jacqmin-Gadda is a member of the International Biometrics Society and was an associate editor of Biometrics. Her research involves methods for analyzing longitudinal data and joint models in areas, including brain aging, HIV, and cancer.