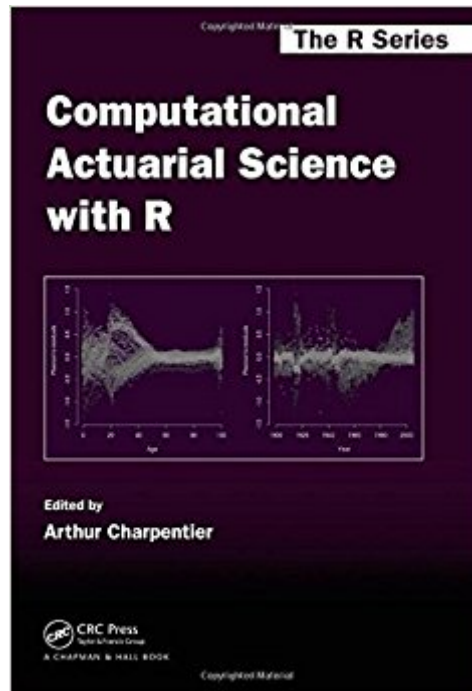# Computational Actuarial Science With R (Chapman & Hall/CRC The R Series)

Synopsis

A Hands-On Approach to Understanding and Using Actuarial Models Computational Actuarial Science with R provides an introduction to the computational aspects of actuarial science. Using simple R code, the book helps you understand the algorithms involved in actuarial computations. It also covers more advanced topics, such as parallel computing and C/C++ embedded codes. After an introduction to the R language, the book is divided into four parts. The first one addresses methodology and statistical modeling issues. The second part discusses the computational facets of life insurance, including life contingencies calculations and prospective life tables. Focusing on finance from an actuarial perspective, the next part presents techniques for modeling stock prices, nonlinear time series, yield curves, interest rates, and portfolio optimization. The last part explains how to use R to deal with computational issues of nonlife insurance. Taking a do-it-yourself approach to understanding algorithms, this book demystifies the computational aspects of actuarial science. It shows that even complex computations can usually be done without too much trouble. Datasets used in the text are available in an R package (CASdatasets).

Book Information

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Average Customer Review: 4.5 out of 5 starsÂ Â See all reviewsÂ (4 customer reviews)

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Customer Reviews

It is a great book. Comprehensive and with good information.One thing I found difficult is the dataset. After looking around I found a download site for installing the dataset package, but still could not find dataset for chapter 14, for example. I found one github site for source code, but that is incomplete. The book would be more approachable if its supplemental materials are made easily

available.

I enjoyed reading through this book. The material was well explained and code was clear. The only reason I didn't give it 5 stars is it doesn't appear to have answers to the questions in each section. Some sections have answers posted on the web by the sections co-authors.I do modeling work in operational risk and this book is perfect for working with R. Looking forward to Dr. Charpentier's next work.

I've been waiting for this book about a year since I got a recommendation at a course in pricing with glm given by Alan Engelhardt from Cybaea and I must say I just give it a superficial read since I got my hands on it (only two days ago) and I am loving it, despite the fact that it is more concerned with computation it is also about implementations I advice that anyone truly interested harvesting most of it should have bibliographic references and from there possibilities are the sky, anyone who has followed the author's blog knows how he explains most of the topics.The printing has many faded parts but anything from it (the content) is supperb

This is an excellent cook book, of sorts, with many recipes for implementing a wide variety of methods in R, to solve a very wide variety of analytical problems in insurance.

Computational Actuarial Science with R (Chapman & Hall/CRC The R Series) CoArrays: Parallel Programming in Fortran (Chapman & Hall/CRC Computational Science) Python for Bioinformatics (Chapman & Hall/CRC Mathematical and Computational Biology) RNA-seq Data Analysis: A Practical Approach (Chapman & Hall/CRC Mathematical and Computational Biology) Actuarial Mathematics for Life Contingent Risks (International Series on Actuarial Science) Solutions Manual for Actuarial Mathematics for Life Contingent Risks (International Series on Actuarial Science) Big Data and Social Science: A Practical Guide to Methods and Tools (Chapman & Hall/CRC Statistics in the Social and Behavioral Sciences) Error Correcting Codes: A Mathematical Introduction (Chapman Hall/CRC Mathematics Series) Modern Adaptive Randomized Clinical Trials: Statistical and Practical Aspects (Chapman & Hall/CRC Biostatistics Series) Healthcare Data Analytics (Chapman & Hall/CRC Data Mining and Knowledge Discovery Series) RapidMiner: Data Mining Use Cases and Business Analytics Applications (Chapman & Hall/CRC Data Mining and Knowledge Discovery Series) A Concise Introduction to Image Processing using C++ (Chapman & Hall/CRC Numerical Analysis and Scientific Computing Series) Handbook of Solvency for Actuaries and Risk

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