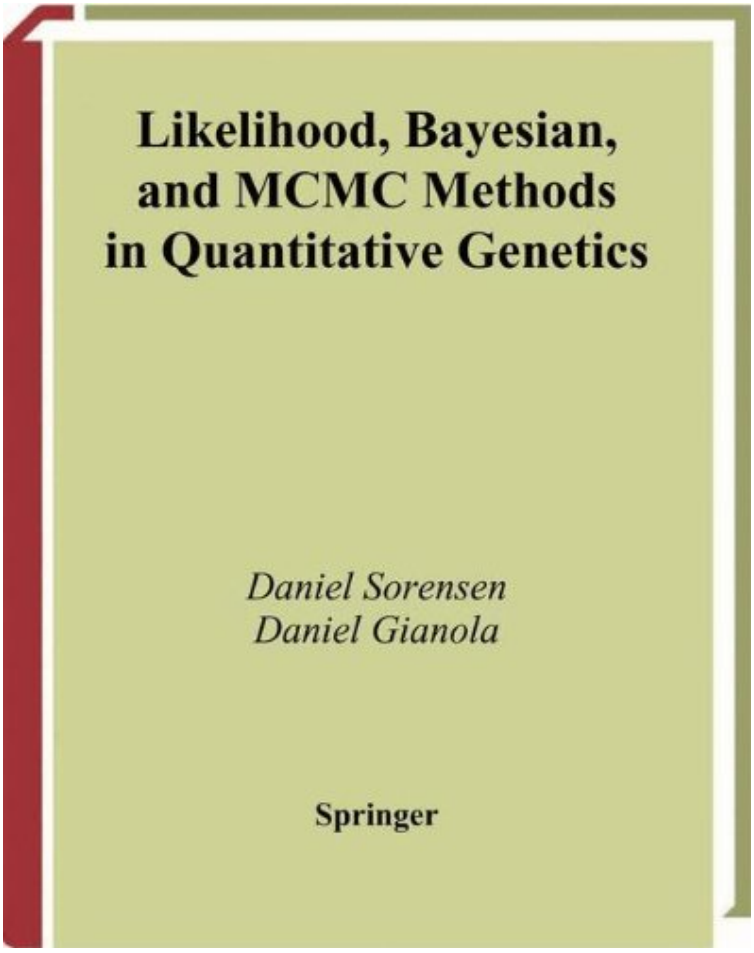
# Likelihood, Bayesian, and MCMC Methods in Quantitative Genetics (Statistics for Biology and Health)

*Daniel Sorensen, Daniel Gianola*




#2457244 in Books Daniel Sorensen 2007-03-22Original language:EnglishPDF # 1 9.21 x 1.63 x 6.14l, 2.62 #File Name: 0387954406740 pagesLikelihood Bayesian and MCMC Methods in Quantitative Genetics | File size: 27.Mb

**Daniel Sorensen, Daniel Gianola : Likelihood, Bayesian, and MCMC Methods in Quantitative Genetics (Statistics for Biology and Health)** before purchasing it in order to gage whether or not it would be worth my time, and all praised Likelihood, Bayesian, and MCMC Methods in Quantitative Genetics (Statistics for Biology and Health):

0 of 0 people found the following review helpful. Five StarsBy joseAwesome book!!!!... each prove is detailed, step by step.10 of 13 people found the following review helpful. Highly recommended!By Guilherme RosaThis book contains a wealth of well presented and organized information, which is not easy to find in texts of similar level. I especially enjoyed the style and clarity of presentation. Outstanding!

This book, suitable for numerate biologists and for applied statisticians, provides the foundations of likelihood, Bayesian and MCMC methods in the context of genetic analysis of quantitative traits. Although a number of excellent texts in these areas have become available in recent years, the basic ideas and tools are typically described in a technically demanding style and contain much more detail than necessary. Here, an effort has been made to relate biological to statistical parameters throughout, and the book includes extensive examples that illustrate the developing argument.

From the reviews: BIOINFORMATICS "I found the coverage of material to be excellent: well chosen and well written, and I didnt spot a single typographical errorIt can serve as a resource book for masters-level taught courses, but will be most useful for PhD students and other researchers who need to fill in the gaps in their knowledge, grasp the intuition behind statistical techniques, models, and algorithms, and find pointers to more extensive treatments. Overall, I find that the authors have succeeded admirably in their goals. I highly recommend this excellent book to any researcher seeking a graduate-level introduction to the modern statistical methods applied in quantitative genetics." "Just one personal sentence as an Introduction: I like the book so much that I have decided to include several parts of it in my own lectures. it may be understood more easily by students and researchers that lack a strong background in statistics and mathematics. most examples are nicely explained. Summing up, I am convinced that this excellent book should be a standard book for researchers and students with a background in genetics who are interested in Bayesian and MCMC methods." (Andreas Ziegler, Metrika, February, 2004) "Both authors have made significant contributions to development of statistical methods in quantitative genetics and in particular have been at the forefront of the adoption of MCMC methods for Bayesian analysis, which can be applied to an enormous range of problems . their coverage of likelihood methods is both extensive and fair. this is a valuable book, in that it presents so much background essential for the subsequent application and merits a much broader market that it is likely to get." (William G. Hill, Genetical Research, Vol. 81, 2003) "The coverage of Bayesian theory is extensive, and includes a discussion of information and entropy, and of the notion uninformative priors, as well as model assessment and model averaging. I found the coverage of material to be excellent: well chosen and well written, and I didnt spot a single typographical error. the authors have succeeded admirably in their goals. I highly recommend this excellent book to any researcher seeking a graduate-level introduction to the modern statistical methods applied in quantitative genetics." (David Balding, Bioinformatics, July, 2003) "The book is aimed at students and researchers in agriculture, biology and medicine. Statisticians will appreciate the attempt to relate biological to statistical parameters. In conclusion the book shows that the authors have a lot of experience with applications of statistics to quantitative genetics. Much more details are given in this book than usual, so it can be considered and recommended for classroom use." (Prof. Dr. W. Urfer, Statistical Papers, Vol. 46 (4), 2005) " [T]he book is worth owning for anyone interested in applying likelihood or Bayesian models, especially realistic models that may require MCMC for implementation." (Journal of the American Statistical Associaton)