

The BUGS Book

A Practical Introduction to Bayesian Analysis

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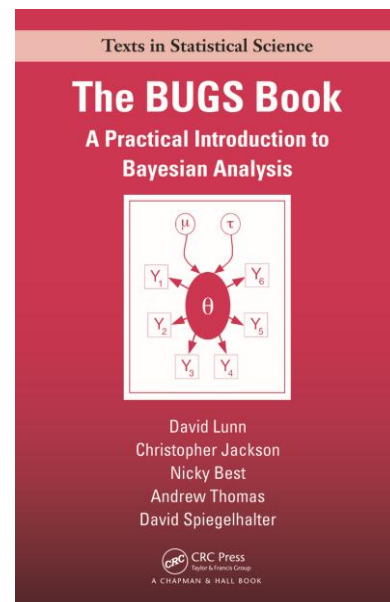
In recent years, Bayesian methods have become the most widely used statistical methods for data analysis and modelling. The BUGS software has become the most popular software for Bayesian analysis worldwide. Authored by the team that originally developed this software, **The BUGS Book** provides a practical introduction to this program and its use. The text presents complete coverage of all the functionalities of BUGS, including prediction, missing data, model criticism, and prior sensitivity. It also features a large number of worked examples, covering a wide range of applications from various disciplines, and exercises, solutions, code and data on a supplementary website.

Key Features

- Provides an accessible introduction to Bayesian analysis using the BUGS software
- Covers all the functionalities of BUGS, including prediction, missing data, model criticism, and prior sensitivity
- Features a large number of worked examples and applications from a wide range of disciplines
- Includes detailed exercises and solutions on the supporting website
- Authored by the team that developed the BUGS software.

Selected Contents

Introduction: Probability and Parameters. Monte Carlo Simulations using BUGS. Introduction to Bayesian Inference. Introduction to Markov Chain Monte Carlo Methods. Prior Distributions. Regression Models. Categorical Data. Model Checking and Comparison. Issues in Modeling. Hierarchical Models. Specialized Models. Different Implementations of BUGS. Appendices. Bibliography. Index.



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