1.	Record Nr.	UNINA9910438144503321
	Autore	Cowles Mary Kathryn
	Titolo	Applied Bayesian Statistics : With R and OpenBUGS Examples / / by Mary Kathryn Cowles
	Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2013
	ISBN	1-4614-5696-7
	Edizione	[1st ed. 2013.]
	Descrizione fisica	1 online resource (236 p.)
	Collana	Springer Texts in Statistics, , 1431-875X ; ; 98
	Disciplina	519.5
	Soggetti	Statistics
		R (Computer program language)
		Statistical Theory and Methods
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di contenuto	What is Bayesian statistics? -- Review of probability -- Introduction to one-parameter models -- Inference for a population proportion -- Special considerations in Bayesian inference -- Other one-parameter models and their conjugate priors -- More realism please: Introduction to multiparameter models -- Fitting more complex Bayesian models: Markov chain Monte Carlo -- Hierarchical models, and more on convergence assessment -- Regression and hierarchical regression models -- Model Comparison, Model Checking, and Hypothesis Testing -- References -- Index.
	Sommario/riassunto	This book is based on over a dozen years teaching a Bayesian Statistics course. The material presented here has been used by students of different levels and disciplines, including advanced undergraduates studying Mathematics and Statistics and students in graduate programs in Statistics, Biostatistics, Engineering, Economics, Marketing, Pharmacy, and Psychology. The goal of the book is to impart the basics of designing and carrying out Bayesian analyses, and interpreting and communicating the results. In addition, readers will learn to use the predominant software for Bayesian model-fitting, R and OpenBUGS. The practical approach this book takes will help students of all levels to build understanding of the concepts and procedures required to answer real questions by performing Bayesian

analysis of real data. Topics covered include comparing and contrasting Bayesian and classical methods, specifying hierarchical models, and assessing Markov chain Monte Carlo output. Mary Kathryn (Kate) Cowles taught Suzuki piano for many years before going to graduate school in Biostatistics. Her research areas are Bayesian and computational statistics, with application to environmental science. She is on the faculty of Statistics at The University of Iowa.