1.	Record Nr.	UNINA9910141259403321
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	Titolo	Bayesian biostatistics [[electronic resource] /] / Emmanuel Lesaffre, Andrew B. Lawson
	Pubbl/distr/stampa	Chichester, West Sussex, : John Wiley & Sons, 2012
	ISBN	1-118-31457-3 1-280-77255-7 9786613683328 1-118-31456-5 1-119-94241-1 1-119-94240-3
	Descrizione fisica	1 online resource (536 pages)
	Collana	Statistics in practice
	Altri autori (Persone)	LawsonAndrew (Andrew B.)
	Disciplina	570.1/5195
	Soggetti	Biometry - Methodology Bayesian statistical decision theory
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Basic concepts in Bayesian methods -- Bayes theorem -- Posterior summary measures -- More than one parameter -- The prior distribution -- Markov chain Monte Carlo -- Software -- Hierarchical models -- Model building and assessment -- Variable selection -- Bioassay -- Measurement error -- Survival analysis -- Longitudinal analysis -- Disease mapping & image analysis -- Final chapter -- Distributions.
	Sommario/riassunto	The growth of biostatistics has been phenomenal in recent years and has been marked by considerable technical innovation in both methodology and computational practicality. One area that has experienced significant growth is Bayesian methods. The growing use of Bayesian methodology has taken place partly due to an increasing number of practitioners valuing the Bayesian paradigm as matching that of scientific discovery. In addition, computational advances have allowed for more complex models to be fitted routinely to realistic data sets.Through examples, exercises and a combination of introductory and more advanced chapters, this book provides an invaluable

understanding of the complex world of biomedical statistics illustrated via a diverse range of applications taken from epidemiology, exploratory clinical studies, health promotion studies, image analysis and clinical trials.

Key Features: Provides an authoritative account of Bayesian methodology, from its most basic elements to its practical implementation, with an emphasis on healthcare techniques.Contains introductory explanations of Bayesian principles common to all areas of application.Presents clear and concise examples in biostatistics applications such as clinical trials, longitudinal studies, bioassay, survival, image analysis and bioinformatics.Illustrated throughout with examples using software including WinBUGS, OpenBUGS, SAS and various dedicated R programs.Highlights the differences between the Bayesian and classical approaches.Supported by an accompanying website hosting free software and case study guides.Bayesian Biostatistics introduces the reader smoothly into the Bayesian statistical methods with chapters that gradually increase in level of complexity. Master students in biostatistics, applied statisticians and all researchers with a good background in classical statistics who have interest in Bayesian methods will find this book useful.