

GENERAL

Rouanet, H., Bernard, J.-M., Bert, M.-C., Lecoutre B., Lecoutre, M.-P., Le Roux, B. (1998), "New Ways in Statistical Methodology, From Significance Tests to Bayesian Inference", Foreword by Patrick Suppes, European University Studies: Ser. 6, Psychology, Vol. 618, Bern (Switzerland): Peter Lang. ISBN 3-906760-68-5 (Bern); ISBN 0-8204-4205-4 (New York)

J. M. Bernardo

Bioestadística: una Perspectiva Bayesiana
Barcelona: Vicens-Vives (1981)
ISBN 84-316-1889-2

J. M. Bernardo and A. F. M. Smith

Bayesian Theory: Wiley , New York (1994)
ISBN 0 471 92416 4

This work takes a decision-theoretic approach to statistics, building on de Finetti (1970). It is to be followed by two additional volumes covering Bayesian computation and methods.

Berry DA, Lindgren BW (1996). Statistics: Theory and Methods (Second Edition). 702 pp, Belmont, California: Duxbury Press.
ISBN: 0-534-50479-5

Berry DA (1996). Statistics: A Bayesian Perspective. 518 pp, Belmont, California: Duxbury Press.
ISBN: 0-534-23472-0

This is an elementary introduction, using no math beyond high school algebra.

George E. P. Box and George C. Tiao, 1973, Bayesian Inference in Statistical Analysis . Wiley , New York

Box and Tiao provide a comprehensive treatment of Bayesian inference with uninformative prior distributions.

Congdon, P. (2001). Bayesian Statistical Modeling. Wiley Series in Probability and Statistics.

Presenting a good balance between theory and application, this text covers Bayesian Analysis using Markov Monte Carlo Methods, illustrated by the Bayesian software BUGS

Richard T. Cox , 1961, The Algebra of Probable Inference ,Johns Hopkins University Press , Baltimore ,

Cox, a physicist, shows that any numerical representation of

consistent statements about uncertain events must conform to a probability theory similar to that of Laplace and Jeffreys.

Giulio D'Agostini, 1995. Probability and Measurement Uncertainty in Physics---a Bayesian Primer . http://www-zeus.desy.de/zeus_papers/desy_papers.html
Building on de Finetti (1970), D'Agostini describes methods for handling random and systematic errors and applies them to problems in high-energy physics.

Bruno de Finetti ,1990, Theory of Probability. First published in 1970 as Teoria delle probabilità, Wiley . New York ,
This vigorous but difficult exposition of a subjective operational approach to probability is notable for, inter alia, developing and applying the concept of exchangeability.

Jean-Pierre Florens and Michel Mouchart and Jean-Marie Rolin. Elements of Bayesian Statistics . Marcel Dekker, 1990, New York .
Rigorous exposition of Bayesian statistics, emphasizing "reduction of a Bayesian experiment considered as a ... probability measure on a product space."

Pierre Simon de Laplace , 1995, Philosophical Essay on Probabilities ,
This was first published in 1814 as a popular introduction to Laplace's Th'eorie analytique des probabilite's. Springer-Verlag , New York ,
Laplace was the first to clearly state Bayes's theorem in full generality. He went on to apply it in astronomy, geodesy, meteorology, and population statistics.

Seymour Geisser, 1993, Predictive Inference: An Introduction. Chapman & Hall .New York Geisser emphasizes inference with regard to observable quantities rather than parameters.

Colin Howson and Peter Urbach, 1993, Scientific Reasoning:The Bayesian Approach , Second , Open Court , Chicago ,
Two philosophers defend Bayesian principles against Karl Popper and other critics. Part II, ``Bayesian induction: deterministic theories," is the best section.

Edwin T. Jaynes ,1994, Probability Theory: The Logic of Science ,
<http://omega.math.albany.edu:8008/JaynesBook.html> ,
Jaynes's unfinished magnum opus emphasizes use of Bayesian and maximum entropy principles to solve problems in physics.

Harold Jeffreys 1961, Theory of Probability . Oxford University Press . Oxford , third edition. ,

Jeffreys, a geophysicist, rediscovered, clarified, and extended Laplace's work. ,

Frank Lad , 1996, Operational Subjective Statistical Methods: A Mathematical, Philosophical, and Historical Introduction , Wiley , New York ,

Lad builds on de Finetti's fundamental theorem of prevision using linear programming methods.

Peter M. Lee , 1997, Bayesian Statistics: An Introduction, Second edition , Arnold , London ,

Lee, a mathematician, provides a crisp, clear introduction for a reader who is comfortable with calculus but not necessarily conversant with linear algebra.

D. V. Lindley, 1965, Introduction to Probability and Statistics from a Bayesian Viewpoint, Cambridge University Press , Cambridge,

This highly respected text is aimed at students who are comfortable with calculus and linear algebra but not necessarily measure theory.

Anthony O'Hagan , 1994, Bayesian Inference, Edward Arnold, London ,

This work, Volume 2B of Kendall's Advanced Theory of Statistics, is a succinct exposition of a decision-theoretic approach to statistics for readers well versed in standard probability distributions. O'Hagan is also the author of First Bayes, a computer package to help students learn Bayesian statistics.

S. James Press and Judith M. Tanur

The Subjectivity of Scientists And The Bayesian Approach, by, April, 2001, published by John Wiley and Sons, Inc.

The authors argue that subjectivity has not only played a significant role in the advancement of science, but that science will advance more rapidly if the modern methods of Bayesian statistical analysis replace some of the classical twentieth-century methods that have traditionally been taught. Yet we are still taught that science is purely objective. This innovative book dispels that myth using historical accounts and biographical sketches of more than a dozen great scientists, including Aristotle, Galileo Galilei, Johannes Kepler, William Harvey, Sir Isaac Newton, Antoine Lavoisier, Alexander von Humboldt, Michael Faraday, Charles Darwin, Louis Pasteur, Gregor Mendel, Sigmund Freud, Marie Curie, Robert Millikan, Albert Einstein, Sir Cyril Burt, and Margaret Mead. Also included is a detailed treatment of the modern Bayesian approach to data analysis. Up-to-date references to the Bayesian theoretical and applied literature, as well as reference lists of the primary sources of the principal works of all the scientists discussed, round out this comprehensive treatment of the subject.

Frank P. Ramsey , R. B. Braithwaite,1931,Truth and Probability,The Foundations of Mathematics and Other Logical Essays, Kegan Paul ,London ,

This essay, written in 1926, lays the foundation for Bayesian decision theory.

Leonard J. Savage , 1972, The Foundations of Statistics, Second edition. Dover . New York ,

This book provides the first full exposition of Bayesian decision theory.

D. S. Sivia,1996, Data Analysis: A Bayesian Tutorial,Oxford University Press, Oxford.

Sivia, a physicist, provides a brief exposition of parametric and non- parametric estimation, model selection, and experimental design for scientists and engineers.