

Gelman, Andrew; Carlin, John B.; Stern, Hal S.; Dunson, David B.; Vehtari, Akti; Rubin, Donald B.

Bayesian data analysis. 3rd revised and updated ed. (English) [Zbl 1279.62004](#)

Chapman & Hall/CRC Texts in Statistical Science Series. Boca Raton, FL: CRC Press (ISBN 978-1-4398-4095-5/hbk). xiv, 661 p. (2014).

New to the third edition:

- Four new chapters on nonparametric modeling
- Coverage of weakly informative priors and boundary-avoiding priors
- Updated discussion of cross-validation and predictive information criteria
- Improved convergence monitoring and effective sample size calculations for iterative simulation
- Presentations of Hamiltonian Monte Carlo, variational Bayes, and expectation propagation
- New and revised software code

See the reviews of the first (reprint 1998) and second editions in [[Zbl 0914.62018](#); [Zbl 1039.62018](#)].

MSC:

- [62-01](#) Introductory exposition (textbooks, tutorial papers, etc.) pertaining to statistics
- [62F15](#) Bayesian inference
- [62-07](#) Data analysis (statistics) (MSC2010)
- [62Jxx](#) Linear inference, regression
- [62Pxx](#) Applications of statistics
- [65C40](#) Numerical analysis or methods applied to Markov chains

Cited in **1** Review
Cited in **269** Documents

Software:

[R](#); [BUGS](#); [BayesDA](#)