Suggested further readings

There are a number of different logical positions in which treatments of Bayesian statistics started that are relevant to NMA.

∷ Contents

Statistics:

Normative Models:

Analysis of neural data:

Print to PDF

Statistics:

Beautiful combination of Bayesian statistics with information theory by the late David MacKay. the book is available for free online. Simply beautiful: MacKay, David JC, and David JC Mac Kay. Information theory, inference and learning algorithms. Cambridge university press, 2003.

Still the standard book. Not exactly perfect for beginners but beautiful: Gelman, Andrew, et al. Bayesian data analysis . CRC press, 2013.

A great text book full of intuitive illustration: McElreath, Richard. Statistical rethinking: A Bayesian course with examples in R and Stan, CRC press, 2020. This book also comes with youtube video/lectures that cover every chapter of the book https://www.youtube.com/watch?v=4WVelCswXo4&list=PLDcUM9US4XdNM4Edgs7weiylguLSToZRI One of the best resources out there to get started on Bayesian stuff.

This book is good for the python Bayes codes: Downey, Allen. Think Bayes: Bayesian statistics in python . " O'Reilly Media, Inc.", 2013.

Another introductory book: Kruschke, John. Doing Bayesian data analysis: A tutorial with R, JAGS, and Stan, Academic Press. 2014.

Normative Models:

The book that propelled the field to visibility: Knill, David C., and Whitman Richards, eds. Perception as Bayesian inference. Cambridge University Press, 1996.

This book is largely focused on Bayesian approaches to cue combination: Trommershauser, Julia, Konrad Kording, and Michael S. Landy, eds. Sensory cue integration . Oxford University Press, 2011

Analysis of neural data:

This book contains a good treatment of Bayesian approaches to the analysis of neural data: Kass, Robert E., Uri T. Eden, and Emery N. Brown. Analysis of neural data. Vol. 491. New York: Springer, 2014.

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