

Annotated File

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Collection resources to bolster up your understanding of mathematical underpinnings of statistics.

Probability distributions papers

Gelman and Raghunathan (2001)

The authors discuss the use of conditional distributions not to approximate joint models but for the purpose of multiple imputation. This is simply a short compendium that facilitate the understanding of SRMI/FCS Multiple Imputation for someone coming from a more traditional Bayesian background.

Bayesian papers

Gelman and Speed (1993)

A clarification on the conditions under which a set of conditional (and marginal) distributions uniquely specifies a joint distribution.

Kyung et al. (2010)

A comprehensive description of the Bayesian lasso and its frequentists counterparts.

Books

Conversano and Siciliano (2008)

A concise overview of tree-based methods.

Fox (2009)

Provides a basic working knowledge of mathematical concepts for statistical applications. In particular, the book introduces the reader to the three pillars: matrix algebra, calculus and probability theory.

Friedman, Hastie, and Tibshirani (2001)

- Chapter 9.2 provides a good introductory summary of tree based modelling methods.

References

- Conversano, Claudio, and R Siciliano. 2008. In *Data Warehousing and Mining: Concepts, Methodologies, Tools, and Applications: Concepts, Methodologies, Tools, and Applications*, edited by John Wang. Vol. 3. IGI Global.
- Fox, John. 2009. *A Mathematical Primer for Social Statistics*. 159. Sage.
- Friedman, Jerome, Trevor Hastie, and Robert Tibshirani. 2001. *The Elements of Statistical Learning*. Vol. 1. 10. Springer series in statistics New York.
- Gelman, Andrew, and T. E. Raghunathan. 2001. “[Conditionally Specified Distributions: An Introduction]: Comment.” *Statistical Science* 16 (3): 268–69. <http://www.jstor.org/stable/2676690>.
- Gelman, Andrew, and TP Speed. 1993. “Characterizing a Joint Probability Distribution by Conditionals.” *Journal of the Royal Statistical Society: Series B (Methodological)* 55 (1): 185–88.
- Kyung, Minjung, Jeff Gill, Malay Ghosh, George Casella, and others. 2010. “Penalized Regression, Standard Errors, and Bayesian Lassos.” *Bayesian Analysis* 5 (2): 369–411.