Bayesian statistics

Exam rules

Bernardo Nipoti, Tommaso Rigon, Raffaele Argiento

University of Milano-Bicocca

Ph.D. in Economics, Statistics and Data Science



Exam

- You will be assigned one or more research papers.
- You must submit to us, at most three to days before the exam date, a 8 pages long review paper about the assigned topic, written in Latex.
- You can use any template you want, but make sure the manuscript is written as if it were to be submitted to a peer-reviewed statistical journal (i.e. *Biometrika*).
- You can decide the content of the review paper, as long as it is related to the assigned papers. We expect you to implement the method /model to some extent, e.g. using R.
- Your manuscript will be peer-reviewed and you will receive a report.
- Finally, you will present the content of your review paper in a 20 minutes talk.
- Optional. If you have some nice novel idea, you can write (a first draft) of a research paper rather than a review.

The keyword system

- The research paper(s) you will be assigned are determined by a list of 3–5 keywords you need to send us before the end of the course.
- For instance, a possible list could be something like:
 - Bayesian nonparametrics
 - Mixture models
 - Asymptotic statistics
- In this case, a likely outcome would be the paper:
- Rousseau, J., & Mengersen, K. (2011). Asymptotic behaviour of the posterior distribution in overfitted mixture models. *Journal of the Royal Statistical Society. Series B: Statistical Methodology*, 73(5), 689–710.