Bayesian Statistics – Students Seminar

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Description

Students have to choose one paper in the following list. Most of the papers are available online (Google Scholar).

The presentation should address the main contribution of the paper. Evaluation of the students is based on the understanding and presentation of the chosen paper, see criteria below.

Brief description of some of the journals:
The Annals of Probability, The Annals of Statistics, Bayesian Analysis, Biometrika, Journal of the American Statistical Association, Journal of the Royal Statistical Society Series B (Statistical Methodology), The American Statistician, American Scientist, Statistical Science.

Evaluation criteria

Slides quality

5: Structure is excellent
4: Structure is good, there are minor suggestions
3: Correct global organisation, but some details lack of clarity.
2: Navigating requires some effort. Lack of structure; some parts are confusing.
1: Student does not seem to spend more than 5 mins on that
0: No slides

Clarity of the explanation/speech

5: Everything is as clear as blue sky, excellent
4: Clear overall, minor problems
3: Lack of clarity in details, but the idea explanation is understandable
2: Following requires some effort, some parts are confusing
1: Student doesn't seem to know what they is talking about
0: Doesn't know what to say. At all.

The paper understanding, answers to questions

5: Outstanding depth of analysis and validation process, excellent answers.
4: Very good depth in analysis, but some points remain to be investigated with more care.
3: Satisfying analysis, some potential mistakes or methodological errors in application, validation or interpretation.
2: Weaknesses in analysis, with some lack of depth.
1: Some poor understanding of the topic.
0: Total misunderstanding.

Papers List

[1] Thomas S Ferguson. Prior distributions on spaces of probability measures. *The Annals of Statistics*, pages 615–629, 1974.

[2] Michael Lavine. Some aspects of Polya tree distributions for statistical modelling. *The Annals of Statistics*, pages 1222–1235, 1992.

[3] François Caron and Emily B Fox. Sparse graphs using exchangeable random measures. *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, 79(5):1295–1366, 2017.

[4] Federico Camerlenghi, Antonio Lijoi, Peter Orbanz, and Igor Prünster. Distribution theory for hierarchical processes. *The Annals of Statistics*, 2018.