Predicting temperature of earth surface based on annual co2 emission – review

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1. Problem formulation

- The problem is clearly stated [1/1 pt]
- Use case is described [1/1 pt]
- Data source and its description is provided [1/1 pt]
- DAG has been drawn [1/1 pt]
- Confoundings are described [1/1 pt]

2. Data preprocessing

- Preprocessing is clearly described [1/1 pt]
- Reasoning and types of actions taken on the dataset have been partially described. Explanation why the newly created data is necessary is missing [0.5/1 pt]

3. Model

- Both models are specified [1/1 pt]
- Difference between the models is provided [1/1 pt]
- The difference in the models justified [1/1 pt]
- Models are partially described [0.5/1 pt]

4. Priors

- It is partially explained why particular priors for parameters were selected [0.5/1 pt]
- Prior predictive checks have been done for parameters [1/1 pt]
- Prior predictive checks have been done for measurements [1/1 pt]
- It is explained how prior parameters were selected [1/1 pt]

5. Posterior analysis (model 1)

- It is stated that there were no problems with sampling [1/1 pt]
- The samples from posterior predictive distribution are analyzed [1/1 pt]
- The data is consistent with posterior predictive samples and it is sufficiently commented [1/1 pt]
- Parameter marginal disrtibutions have been analyzed [1/1 pt]

6. Posterior analysis (model 2)

- It is stated that there were no problems with sampling [1/1 pt]
- The samples from posterior predictive distribution are analyzed [1/1 pt]
- The data is consistent with posterior predictive samples and it is sufficiently commented [1/1 pt]
- Parameter marginal disrtibutions have been analyzed [1/1 pt]

7. Model comparison

- Models have been compared using information criteria [1/1 pt]
- Result for WAIC has been discussed [1/1 pt]
- Result for PSIS-LOO has been discussed [1/1 pt]
- Model comparison was discussed [1/1 pt]

Summary

25.5/27 pt ≈ 94%