

Review by ISZ_5 for ISZ_4

Reviewers:

Katarzyna Słomińska 400563

Joanna Nużka 400561

Score:

points: 27/27

100%

1. Problem formulation [5/5 pt]

- **Is the problem clearly stated [1/1 pt]**
Yes, it is described in the Introduction
- **What is the point of creating model, are potential use cases defined [1/1 pt]**
Yes, it is described in the Introduction
- **Where do data comes from, what does it contain [1/1 pt]**
Yes, it is described in the Dataset
- **DAG has been drawn [1/1 pt]**
Yes, it has been drawn
- **Confoundings (pipe, fork, collider) were describe [1/1 pt]**
Yes, the confoudings have been described

2. Data preprocessing [2/2 pts]:

- **Is preprocessing step clearly described [1/1 pt]**
It is clearly described in the Data Preprocessing
- **Reasoning and types of actions taken on the dataset have been described [1/1 pt]**
It is clearly described in the Data Preprocessing

3. Model [4/4 pts]

- **Are two different models specified [1/1 pt]**
Yes there are two different types of models
- **Are difference between two models explained [1/1 pt]**
Yes, there are two models of which one is an extension of the other with additional parameters in order to improve prediction
- **Is the difference in the models justified (e.g. does adding additional parameter makes sense?) [1/1 pt]**
Yes, the difference in the models is justified and adding am additional parameters is clear and make sense
- **Are models sufficiently described (what are formulas, what are parameters, what data are required) [1/1 pt]**
Yes, everything is clearly described

4. Priors [4/4 pts]

- **Is it explained why particular priors for parameters were selected [1/1 pt]**
Yes, it has been explained
- **Have prior predictive checks been done for parameters (are parameters simulated from priors make sense) [1/1 pt]**
Yes, there have been previous predictive checks of the parameter
- **Have prior predictive checks been done for measurements (are measurements simulated from priors make sense) [1/1 pt]**
Yes, this data is visualized
- **How prior parameters were selected [1/1 pt]**
Yes, priors have been shown

5. Posterior analysis (model 1) [4/4 pts]

- **Were there any issues with the sampling? if there were what kind of ideas for mitigation were used [1/1 pt]**
Sampling issues have been described
- **Are the samples from posterior predictive distribution analyzed [1/1 pt]**
Yes, they were
- **Are the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided)**
Yes data is consistent with predictive samples and is sufficiently commented
- **Have parameter marginal distributions been analyzed (histograms of individual parameters plus summaries, are they diffuse or concentrated, what can we say about values) [1/1 pt]**
Analyzed the marginal distributions of the parameters

6. Posterior analysis (model 2) [4/4 pts]

- **Were there any issues with the sampling? if there were what kind of ideas for mitigation were used [1/1 pt]**
Sampling problems have not occurred, which is described in the Issues
- **Are the samples from posterior predictive distribution analyzed [1/1 pt]**
Yes they are
- **Are the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided) [1/1 pt]**
Yes data is consistent with predictive samples and is sufficiently commented
- **Have parameter marginal distributions been analyzed (histograms of individual parameters plus summaries, are they diffuse or concentrated, what can we say about values) [1/1 pt]**
Analyzed the marginal distributions of the parameters

7. Model comparison [4/4 pts]

- **Have models been compared using information criteria [1/1 pt]**
Yes they have
- **Have result for WAIC been discussed (is there a clear winner, or is there an overlap, were there any warnings) [1/1 pt]**
Yes they have
- **Have result for PSIS-LOO been discussed (is there a clear winner, or is there an overlap, were there any warnings) [1/1 pt]**
Yes they have
- **Was the model comparison discussed? Do authors agree with information criteria? Why in your opinion one model better than another [1/1 pt]**
Yes the model comparison were discussed and authors agreed with the outcome