Review ISZ_07

reviewers

Imię i Nazwisko 1	Igor Ratajczyk	Points:	25/27
Imię i Nazwisko 2	Dominik Żurek	Percent:	92%

Problem formulation [5 | 5 pts]:

- is the problem clearly stated **[1 pt]**

- what is the point of creating model, are potential use cases defined **[1 pt]**

- where do data comes from, what does it containt **[1 pt]**

- DAG has been drawn **[1 pt]**

- confoundings (pipe, fork, collider) were described **[1 pt]**

Data preprocessing [2 | 2 pts]:

- is preprocessing step clearly described **[1 pt]**

- reasoning and types of actions taken on the dataset have been described **[1 pt]**

Model [4 | 4 pts]

- are two different models specified **[1 pt]**

- are difference between two models explained **[1 pt]**

- is the difference in the models justified (e.g. does adding aditional parameter makes sense?) **[1 pt]**

- are models sufficiently described (what are formulas, what are parameters, what data are required) **[1 pt]**

Priors **[2 | 4 pts]**

- Is it explained why particular priors for parameters were selected **[1 pt]**

- Have prior predictive checks been done for parameters (are parameters simulated from priors make sense) **[1 pt]**

- Have prior predictive checks been done for measurements (are measurements simulated from priors make sense) **[0 pt]**

Samples from the prior predictive distribution do not appear to follow the same trend the data does. They appear to be wide enough for the fit to correct that.

- How prior parameters were selected **[0 pt]**

It was not explained why particular values were selected for the prior parameters.

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 pt]**

- are the samples from posterior predictive distribution analyzed **[1 pt]**

- are the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided) **[1 pt]**

- have parameter marginal disrtibutions been analyzed (histograms of individual parametes plus summaries, are they diffuse or concentrated, what can we say about values) **[1 pt]**

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 pt]**

- are the samples from posterior predictive distribution analyzed   **[1 pt]**

- are the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided)   **[1 pt]**

- have parameter marginal disrtibutions been analyzed (histograms of individual parametes plus summaries, are they diffuse or concentrated, what can we say about values)   **[1 pt]**

Model comparison **[4 | 4 pts]**

- Have models been compared using information criteria   **[1 pt]**

- Have result for WAIC been discussed (is there a clear winner, or is there an overlap, were there any warnings)   **[1 pt]**

- Have result for PSIS-LOO been discussed (is there a clear winner, or is there an overlap, were there any warnings)   **[1 pt]**

- Whas the model comparison discussed? Do authors agree with information criteria? Why in your opinion one model better than another   **[1 pt]**