IZS5 review (Joanna Nużka and Katarzyna Słomińska)

1. Problem formulation [**5**/5 pts]:

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

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

- where do data comes from, what does it containt [**1**/1 pt] -> described in problem formulation and data preprocessing

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

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

2. Data preprocessing [**2**/2 pts]:

- is preprocessing step clearly described [**1**/1 pt] -> it is description at the beginning of the section and then a code

- reasoning and types of actions taken on the dataset have been described [**1** /1 pt] -> it is described at the beginning of the section

3. Model [**4**/4 pts]

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

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

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

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

4. Priors [**3,5**/4 pts]

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

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

- Have prior predictive checks been done for measurements (are measurements simulated from priors make sense) [**0,5**/1 pt] -> it is done for only one of models

- How prior parameters were selected [**1**/1 pt]

5. Posterior analysis (model 1) [**3**/4 pts]

- were there any issues with the sampling? if there were what kind of ideas for mitigation were used [**1**/1 pt]

- are the samples from posterior predictive distribution analyzed [**0,5**/1 pt] -> yes, but analysis is short

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

- have parameter marginal disrtibutions been analyzed (histograms of individual parametes plus summaries, are they diffuse or concentrated, what can we say about values) [**0,5**/1 pt] -> histograms without description

6. Posterior analysis (model 2) [**3**/4 pts]

- were there any issues with the sampling? if there were what kind of ideas for mitigation were used [**1**/1 pt]

- are the samples from posterior predictive distribution analyzed [**0,5**/1 pt] -> yes, but analysis is short

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

- have parameter marginal disrtibutions been analyzed (histograms of individual parametes plus summaries, are they diffuse or concentrated, what can we say about values) [**0,5**/1 pt] -> histograms without comment

7. Model comaprison [**4**/4 pts]

- Have models been compared using information criteria [**1**/1 pt] -> we can find this information in previous sections

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

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

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

Total 24,5/27 -> 90,7%