

Dear Mr. Wang,

Thank you very much for your detailed comments concerning our manuscript HESS 2016-84. A final revised version has now been uploaded.

We corrected the typos and changed some wordings, as suggested in your sticky notes. Further we tried to address your main comments as follows:

- (1) We tried to better explain the forecast aggregation strategy. Further we agree that a fixed term for the aggregated forecast improves the comprehensibility of the manuscript. We chose the term composite forecast and used it throughout the manuscript. In our opinion, the equations on p. 11 seem to be correct.

The $F[1:3]^m$ -forecast model is defined as the sum of random forest model results based on predictor variables from the month m with lead times of 1, 2 and 3 months. The $F[4:6]^m$ -forecast is equally based on predictor variables from month m , but involves the random forest models with lead times of 4, 5 and 6 months.

$$F[1:3]^m = \sum_{l=1}^3 RF(m, l) \quad \& \quad F[4:6]^m = \sum_{l=4}^6 RF(m, l)$$

where $RF(m, l)$ is the specific Random Forest forecast model based on predictor variables of the month m and precipitation anomalies occurring after a lead time of l months. As an example, the $F[1:3]^{12}$ -composite forecast including January, February and March is defined as the sum of three RF model results, which are all based on predictor variables from previous December. $RF(m=12, l=1)$ utilizes predictor variables from December for the January forecast, $RF(m=12, l=2)$ indicates the December based forecast for February, $RF(m=12, l=3)$ is the forecast march.

- (2) We agree, that our modelling approach is actually deterministic, although, we describe a simple method for a transformation to a probabilistic forecast in the model evaluation section. In the revised manuscript, we shortly discuss this drawback in the summary and outlook section and suggest the generation of a model ensemble and a bayesian model averaging approach (as proposed in your JCLim paper) as one possible improvement.

We are looking forward for your response. With best regards,

Lars Gerlitz et al.