

# The development and evaluation of a hydrological seasonal forecast system prototype for predicting spring flood volumes in Swedish rivers

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## General remarks

This paper describes results from a hindcast study of a multimodel approach for ensemble streamflow forecasting. While the method has been described in an earlier paper, this paper focuses on the performance evaluation of two variations: MEads and MEhds. The skill metrics are well explained and results show a clear improvement of skill compared to the historical ensemble (HE, or classical ESP) method.

The text is well-written and clear. Below are a few minor comments and questions.

## Questions and comments

- Page 3, line 30: It surprises me that no weighting scheme was applied. I would expect you have knowledge about the relative performance of the different model chains from experience of from earlier studies (Olson et al, 2016). Is this something you intend to investigate in the future?
- Page 4, line 29: Do you use all index values from this period, or the average, or else?
- Page 10, line 21 and 22: “starting from 1961” and “period 1961-2015” Is this a typo? On page 7, line 2, a different period was mentioned (1981-2015). If this is not a typo, why can the years 1961-1980 not be used for the performance evaluation?

## Grammar and spelling

- Use punctuation when using adjuncts, for example on page 2:
  - To achieve this, operators ...
  - In practice, there are ...
- Page 10, line 6: “~~subbasins~~ sub-basins”
- Page 10, line 17: “(~~hereafter~~ SFV)” (this abbreviation has been introduced before).
- Page 12, line 20: “... to perform ~~the~~ better than...”
- Page 13, line 16: “~~a~~ mean”
- Page 14, line 17: “with regards to”
- Page 15, line 17: “however the prototype”
- Table 3: LT, MT and UT are not introduced. Do you mean BN, NN, AN?