Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2020-4-RC3, 2020 © Author(s) 2020. This work is distributed under the Creative Commons Attribution 4.0 License.



Interactive comment on "Conditional simulation of surface rainfall fields using modified phase annealing" by Jieru Yan et al.

Anonymous Referee #3

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The manuscript introduces a very interesting and novel method for generation of rainfall fields conditioned on point and radar observations of rainfall. Although quite technical it is well written and clear in structure. I neither have any major comment nor any hesitation against publication. I have only three minor thoughts which the authors might contemplate.

1. The spatial asymmetry is difficult to understand. May be a graphical comparison between a spatial symmetric and asymmetric field can aid the reader.

2. For potential imitation and practical applications of the procedures it would be quite useful to know a bit more about the computing time needed for the different simulation sessions and stages, may be provided in an overview table.

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3. The application of the simulated field e.g. for hydrological modelling will become only important if also the temporal sequence of several time steps can be simulated. A brief discussion if this would feasible would be useful.

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