Geoscientific

Model Development

Discussions

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Interactive

comment

Interactive comment on "MSDM: a machine learning model for precipitation nowcasting over east China using multi-source data" *by* Dawei Li et al.

Anonymous Referee #4

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This manuscript discusses the potential of some ML methods to tackle the nowcasting problem. It is an interesting paper and it can become a valuable contribution. However, it requires modifications and improvements before being acceptable for publication.

First of all, it is unclear why the authors prefer the multi-model method when it does not give the best results in comparison with others. Furthermore, to me this method just seems like a combination of all other possible methods: Optical flow, Random forest and Convolutional Neural Network (CNN). Can one really disentangle what contributions to the solution of the problem are coming from each of the components? More insight into this is needed, especially if the method is not the one leading to the best

results.

Some minor comments are:

Parentheses and periods misplaced. Incorrect double citations throughout the paper Many acronyms that are never defined. 11. its -> their or the 12-13. check sentence 14. ndarray? 28. Unnecessary 'the' 74-75. Due to limits on computational resources Figure 6 increase the labels It is not very scientific to label the method being tested as 'ours'

Interactive comment on Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2020-363, 2020.