Hydrology and Earth System Sciences Discussions

Hydrol. Earth Syst. Sci. Discuss., community comment CC1
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Comment on hess-2021-371

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Community comment on "Impact of spatial distribution information of rainfall in runoff simulation using deep learning method" by Yang Wang and Hassan A. Karimi, Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2021-371-CC1, 2021

First of all, I think the authors' study is significant at this point in time. With the development of deep learning techniques, more and more studies are combining deep learning models with hydrology-related issues. However, the combination of many studies does not apply the special conditions and theories in hydrology. As the authors investigate in their paper, by driving deep learning models with hydrological data, we need to consider the impact of spatial distribution information.

1. You mentioned gridded precipitation data in your summary. It seems that gridded precipitation data can better describe the spatial distribution of rainfall than the spatial information provided by using rainfall from HUIs. Why did you not use the grid precipitation data in your study?

2. According to your results, short-term spatial distributed rainfall data with long-term runoff data can give us good simulation results. Would it be more appropriate to use the model for single rainfall event simulations instead of long series?

Thank you.

precipitation

英 [pr□ˌs□p□ˈte□□n]

美 [pr□ˌs□p□ˈte□□n]

n.降水；沉淀；降水量(包括雨、雪、冰等)；淀析

definition

nounoverly eager speed (and possible carelessness)