

This manuscript mainly discusses the application of complex-network-based methods for the spatial and temporal characteristics of rainfall in East Asian region, with vital nodes identification and community detection being used. As far as I know, this is a good direction from the perspective of application. I am not a climate expert, therefore mostly I would like to consider how the methods deliver a solid and convincing application. There are still several main points I would like to emphasize here, hoping that authors in this manuscript would provide proper explanations, both in the later revised manuscript and response report.

Regarding dataset:

(1) Why not directly use the original precipitation points (or maybe a slight coarsen resolution, if the original resolution is too small), because I see from Fig. 2 that in East Asian region, there are a lot of points more than 24?

24-city is a quite small-scale. That means the constructed network has only 24 nodes. Even for the selected 24 cities, there are probably several stations inside each of them. Then it would be better to consider the original dataset, because the aggregation of rainfall data for each city is essentially omitting some local information. Besides, as far as I know, the computational complexity (that is, the actual running time) for a network with for example 1000 nodes, can still be pretty small. Another reason to consider a higher resolution is that it delivers a more convincing conclusion.

Regarding methods:

(1) Why use vital node identification and community detection together? And how they both contribute to the final conclusion?

In the domain of complex network analysis, vital node identification and community detection are different research problems, although there might be some overlapping between them. I initially thought there might be some connections between the results obtained from these two methods in this manuscript. But it seems to me that they are separate contents. In my opinion, vital nodes are possibly useful for disaster mitigation, while community detection could be useful for finding out regions of similar climatological behavior, but there might be a lack of explanation on why they should be considered together, and specifically, how they help in obtaining the final conclusion.

(2) Regarding the community detection, how is the quality of community structure (or "groups" in this manuscript) measured? Also, how is the threshold "t" determined?

When applying community detection, commonly accepted measures include modularity and normalized mutual information. But there is a lack of explanation in this regard. The threshold "t" could be any value between the range of [0, 1]. Different values could lead to different forms of groups. If there is not a standard way to determine what it would be, then why the group in Fig. 5 would be chosen as the final result.

Others:

(1) From the current version of the Abstract, the main conclusion is not emphasized.

(2) Contents between 153 and 165 (both equations and paragraphs) should be reorganized in a more formal way

(3) Fig. 5 has a label problem, two "G2".