

## ***Interactive comment on “When does higher spatial resolution rainfall information improve streamflow simulation? An evaluation on 3620 flood events” by F. Lobligeois et al.***

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I commend the authors for an excellent analysis and manuscript. The paper accurately describes and addresses a knowledge gap in our understanding of the impact of precipitation spatial variability. The literature review is well done. The methodology is sound, and the paper is very well structured and written. It is a pleasure to read. The strength of the paper lies in the very large number of test cases and the thoroughness of the analyses. I look forward to reading future papers from the authors if they have an opportunity to continue this line of research. For example, it would be very interesting to see the impact of spatial variability of model parameters on the results, as the

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authors describe in Section 5.2.

I recommend that the paper be published after addressing the very minor comments below.

1. Line 9: I suggest that the authors define the acronym KGE so that reader doesn't have to refer to the table.
2. Figure 6, lower left panel. Should the values of IL be near 1.0? The x axis shows values much greater than 1. For example, compare Figure 6 to the top panels in Figure 11, where IL seems to vary between 0.5 and 1.50
3. Table 3. Please check the formula for KGE. If I am not mistaken, I think the quantity needs to be subtracted from 1. (see Equations 9 and 10 in Gupta et al., 2009)

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