General Comments: The paper is very interesting and tries to add new knowledge to the field of urban hydrology. The use of stochastic rainfall generators and their impact in urban drainage is very important and recent. The authors try to quantify, not only the impact of spatial component of rainfall, but also its temporal component.

[reply] We thank the reviewer for his time and effort reviewing our manuscript.

Specific comments:

1) It would be interesting to know the drainage area of each location where the flow analysis was conducted.

[reply] Contributing area: 11.5 ha total area (5.3 ha impervious area) is connected to location A and 30.2 ha (13.6 ha) is connected to locations B and C, whereas the two latter locations are constrained through the overflow weir structure. We will add this information in manuscript.

2) Why you didn't test more locations in the upstream part of the catchment. It would be interesting to see the climate and spatial contribution in smaller drainage areas (for example an upstream pipe and one not affected by hydraulic structures, such as CSOs.) This would be important, since some authors showed that upstream pipes are more sensitive to spatial variability (eg. Gires et al., 2012)

[reply] Location A is located upstream of the CSO and is not affected by it. The goal in this study was to compare the spatial vs. climatic rainfall variability contribution to the total flow variability, thus we make do with one upstream location for the analysis. Examining the effects of contributing area on peak flows depending on the topological location within the network indeed requires analyzing further locations along the drainage system. This maybe be interesting - as shown in previous studies - however it is not a key aspect of this paper. We will address the reviewer's comment in the revised version of the manuscript.

3) Is there flooding in any node? How did your SWMM model deal with it? If there is flooding, what is the impact in the flow return period.

[reply] Node flooding (overflow and re-intake into the sewer system) can be simulated in SWMM, but it was not enabled in this study (ponded area was set to zero due to lack of adequate topography information). The flow return period is computed for the entire response of the drainage system, including the floods if occur at different nodes. A note will be added to the manuscript explaining how we dealt with node flooding throughout our SWMM simulations.

4) Figure 3 could be improved showing the inverse-CDF curve of all the 30 events, not only the mean.

[reply] It is represented (shaded red area) for the 5-95 quantile of all 30 events. The range is very thin and almost unnoticeable.

5) In section 3 (1st paragraph) is not clear why do you use IDF and FDF curves, instead of the obtained/simulated values. I agree with the strategy, but a clear explanation should be added.

[reply] A sentence will be added to rationalize the use in IDF and FDF curves.

6) Figure 2 needs a better explanation

[reply] Further explanation will be added to the figure caption.

Technical corrections:

1) Figure 2 needs more quality

2) In Figure 5 legend, where is “quantile range is than calculated for each” should be “quantile range is then calculated for each”

[reply] We will address the technical corrections in the revised manuscript.