

Interactive comment on “How does initial soil moisture influence the hydrological response? A case study from southern France” by Magdalena Uber et al.

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This paper reports a case study to investigate the impact of initial soil moisture on hydrological response. Although many similar experiments have been carried out in tremendous papers, I still believe that this kind of field experiments shall be encouraged for publication in hydrological journals, because experiments and observations are fundamental to test or reject our scientific hypotheses. But considering the quality of the writing, further revision is needed for consideration to publish in HESS.

1. This paper is too long with too many details. The abstract shall be shorten. Introduction looks okay, but more literature shall be discussed as mentioned by previous

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two reviewers. There are too many details in the Results and Discussion. Particularly, the Conclusions have two pages, which is absolutely not necessary.

2. For the science part, the authors missed an important factor while discussing the relationship between soil moisture and hydrological response – the topography. As we all know, as hydrologists, topography has great impact on initial soil moisture and runoff generation. For example, hillslopes, riparian areas, and plateau have significantly different runoff generation mechanisms (cf. Seibert et al., 2003; Savenije, 2010; Gao et al., 2014). Figure 1 shows that many continuous soil moisture observations are located in the areas near the channel network, right? This means that the observations are mainly reflecting the soil moisture dynamic on riparian areas. This can explain the immediate response of rainfall – soil moisture – runoff. But what is happening on hillslopes? What is the impact of topography on your conclusions?

References:

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