

I would like to thank the authors for the revision of the paper and the response to my comments. In general the authors have followed most comments with a detailed and clear response. However, I still have some concerns about how do you prepare the experiment. For example, how to construct the whole soil volume and keep it homogeneous? Do you have calibrated all the soil moisture sensors?

Specific comments:

The experiment results do remains some important things unsolved:

1. why soil moisture content decrease with depth. The authors also cannot give a true explanation without measurement of the soil hydraulic characteristics from the artificial catchment. Usually, soil cores drilling are necessary step for artificial hillslope experiment though the soil volume is backfilled under controlled conditions, e.g., the volume density keeps constant.
2. soil water content exceed the maximum porosity in Figure 5. Does such results happen to all the sensors, and if you have calibrate them before setting up for observations? As it can significantly influence your conclusions in that it determined overland flow through water balance analysis.