OVERVIEW

The study describes in details a new cross-disciplinary observation strategy for monitoring and understanding heavy precipitation events. The strategy has been applied in a small catchment in Germany during the summer of 2019.

GENERAL COMMENTS

The paper is well written and clear. The topic is relevant as we need detailed monitoring strategies to improve our monitoring and understanding of the formation of extreme events from their formation to flooding. The authors have made a tremendous effort for setting up a measurement strategy, with good and interesting results. The paper is easily readable and clear. I have listed here two minor comments that the authors might consider for improving the paper readability.

- The paper is too long for me. I believe the authors may consider the reduction of some parts, avoiding to go too much in details in the description of the technological aspects of the measurement apparatus. Likely these descriptions can be moved in the supplementary material.

- The HYDRATE project (https://cordis.europa.eu/project/id/37024), ended in 2010, has been specifically designed to monitor flash floods and hence with a purpose very close
to that addressed by the authors in this study, and in the future monitoring campaigns. I would suggest to make a link to this project also to benefit from the experience gained.

**RECOMMENDATION**

On this basis, I found the topic of the paper relevant, and I suggest a minor revision before the paper can be published in Hydrology and Earth System Sciences.