

The publication has made great progress. In the current version, ingredients of deep moist convection are now discussed. Particularly promising is the fact that a high-resolution model can be used to analyse the floods. I therefore recommend another iteration of the review to include one more figure derived from the model.

1. Thermodynamic profile derived from the model

I recommend to include a representative vertical profile for this case, e.g. derived from the model. Are there characteristics of heavy rain events, like modest CAPE, skinny CAPE profiles (e.g. small negative values of LI), high relative humidity at mid levels, a deep warm cloud layer due to a low lifted condensation level and a freezing level high above the ground (e.g. 3 km), weak CIN, weak flow and expected slow storm motion? Recognition of the mentioned characteristics can improve forecasts of such events, together with the given large-scale analysis and the presented MKI maps.

2. Convection initiation

It would be good to discuss the reasons that may have led to training storms over the southern location as shown in figure 9 (left). For example, due to the northerly low-level winds, there could be upslope flow at the southern end of the valley. Additionally, the developing mountain-valley circulation short after sunrise might have supported new storm development parallel to the mountain slopes at the western flank of the valley that led to the flood later at 9:35 UTC. It would add to the discussion of large-scale forcing.