



A real-time adjustment of radar rainfall at European scale for flash flood hazard assessment

Shinju Park, Marc Berenguer, and Daniel Sempere-Torres

Universitat Politècnica de Catalunya (UPC), Center of Applied Research in Hydrometeorology (CRAHI), Barcelona, Spain
(shinju.park@crahi.upc.edu)

Radar QPE composites generated within the EUMETNET project OPERA is one of the key elements to the assessment of pan-European flash flood hazard induced by heavy rainfalls. OPERA composites allow to monitor transborder rainfalls with very high-resolution in space and time (2 km, 15 minutes).

However, to apply these composites for real-time hazard assessment, it has been necessary to guarantee the quality of the rainfall products. We present a method applying real-time adjustment factor to the radar QPE by long-term (up to 6 months) comparison between SYNOP rainfall records and radar accumulations over Europe. The results with and without the adjustment are analysed during several months of 2017, and its impact on the flash flood hazard assessment is demonstrated with the selected flash flood events.