

What is the best strategy to evaluate ensemble rainfall forecast products over a short and often rare flash flood event?

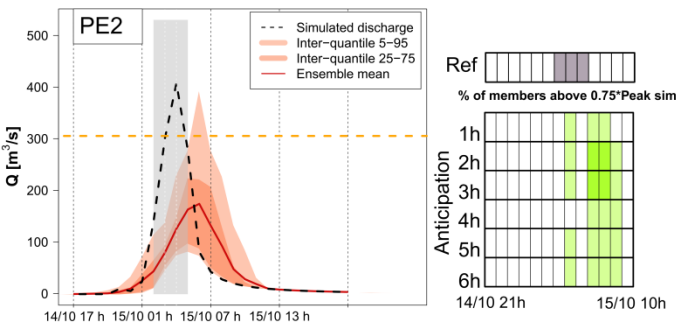
PE2: Three latest forecasts from AROME-PE NWP ensemble

PE3: Combination of AROME-PE NWP with five forecasts from AROME-PI (nowcasting; every hour, time-lagged)

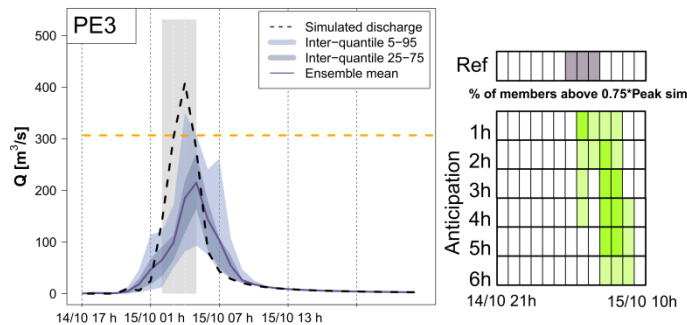
PE4: Combination of PE3 with latest AROME-France NWP (deterministic) and AROME-IFS (AROME model with IFS BC)

► Visual inspection of hydrographs at a given lead time and the associated flood threshold exceedances

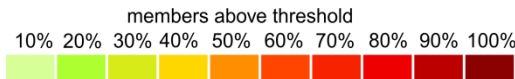
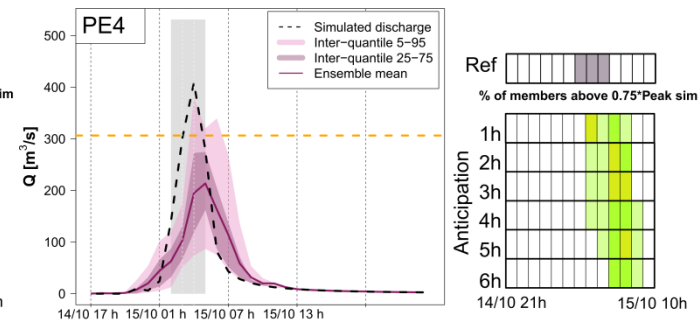
Lead Time +1h



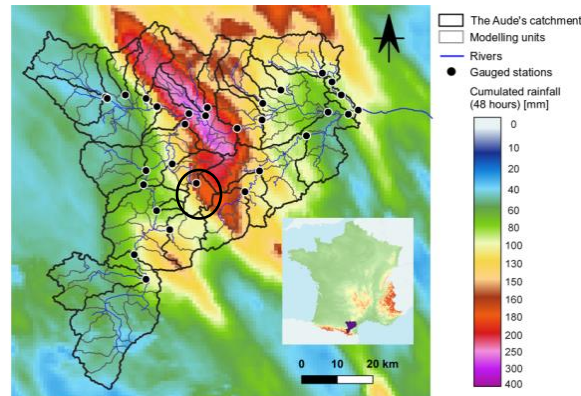
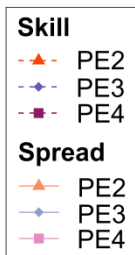
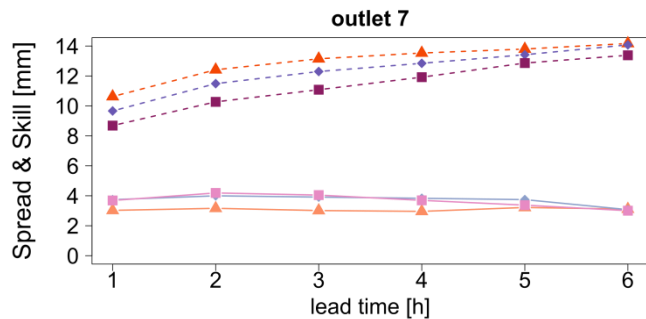
Lead Time +1h



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► Spread-skill score: differences across lead times



Cumulated observed rainfall in the Aude (4,840 km²; 14-15 Oct 2018)

This work is part of the French national project ANR PICS, <https://pics.ifsttar.fr/>

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