

8 x 2 rain gauges, 0.2 mm



Coll. with A. Schellart, Bradford U. Campus (UK)

16 PARSIVEL® disdrometres, 1 min

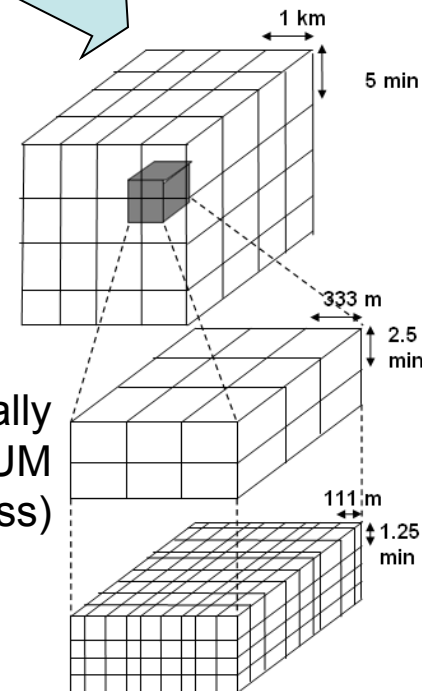
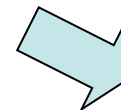
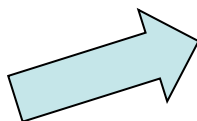


Coll. with Alexis Berne EPFL Campus (Switzerland)

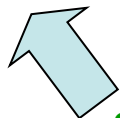
Downscaling as a first step to revisiting merging techniques

Validation of a Universal Multifractal downscaling process with the help a dense network of disdrometers or rain gauges

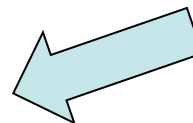
Aggregation to 1km x 5 min



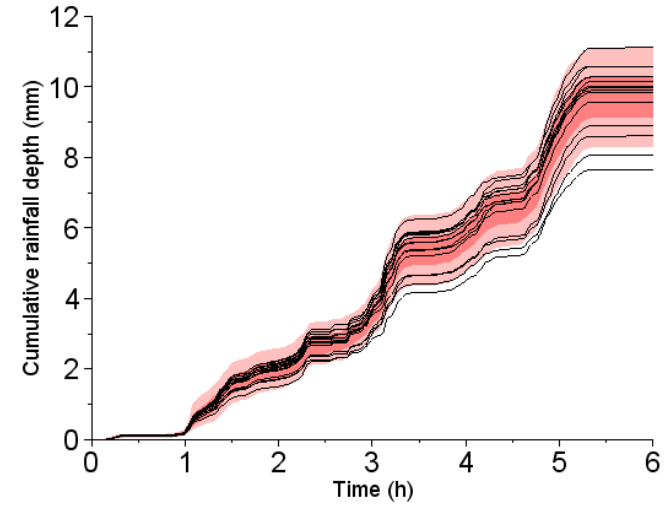
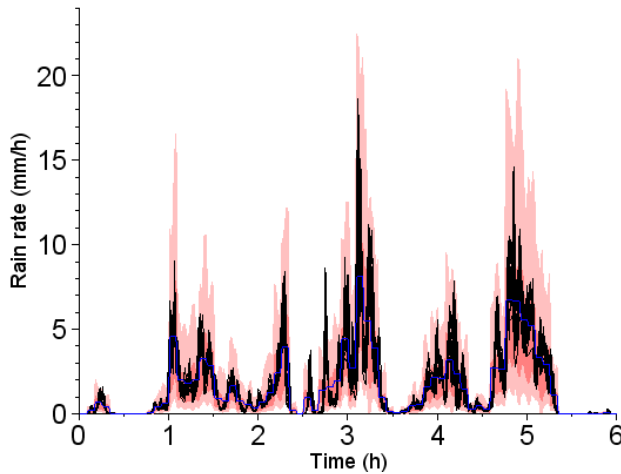
Downscaling (stochastically continuing the underlying UM cascade process)



Generation of the output of 2187 x 2187 virtual point measurements with observation scale of 46 cm x 1 min

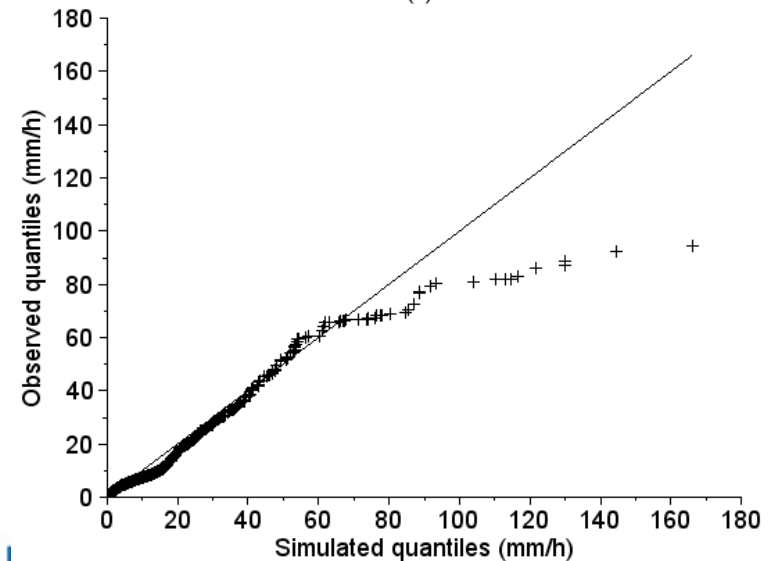


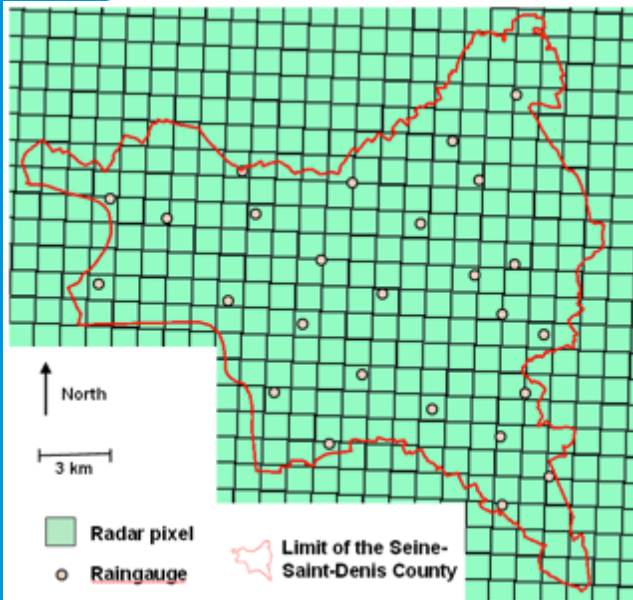
6th June 2009, EPFL data : 16 disdrometers measurements + uncertainty range (75% and 95% quantile)



Quantile plot with the whole data

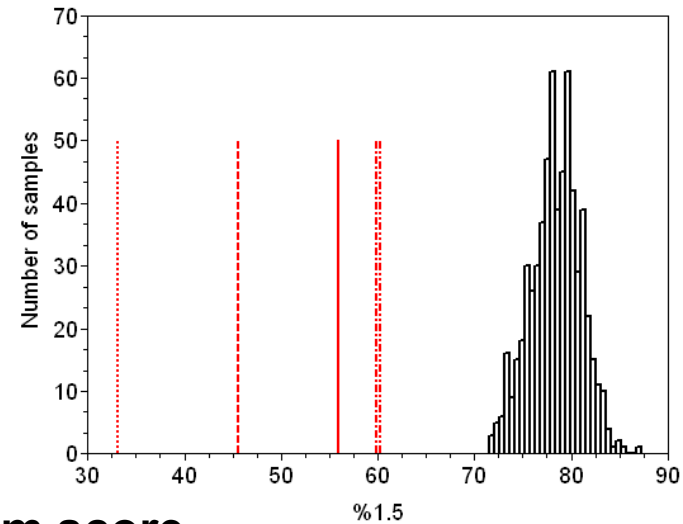
Underestimation of the extremes by the disdrometers





Percentage ($\%_{1.5}$) of radar time steps (R_i) contained in the interval:

$$[1.5G_i; G_i / 1.5]$$



- Shifting the optimum score
- Standard value for score comparison

Future ideas

- Revisiting interpolation → shifting to ensemble outputs
- Revisiting merging → computing range of possible radar values according to point measurements and shifting to ensemble outputs

