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## Simulated hailstorms over Switzerland in May 2018 in current and future climate conditions

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Several remarkable hailstorms have occurred on the territory of Switzerland during the month of May, 2018.

This period has been simulated, using the WRF4.0 model at a convection-permitting resolution (1.5 km), using different microphysical schemes (Thompson, Morrison, P3).

The surrogate climate change approach has been used for imitating the climate conditions, corresponding to the end of the 21st century (CMIP5 model data, RCP8.5 scenario).

The HAILCAST-1D model output has been used as a measure of simulated hail size and 5-minute 3-D radar reflectivity field has been used for cell identification and tracking.

Hailstorms produced in the current climate and in surrogate climate change simulations have been examined using neighborhood methods and a storm-tracking algorithm. Current-climate simulated hailstorms were compared with the ground observations and MeteoSwiss radar data.

The influence of microphysical schemes to the characteristics of simulated hailstorms has been studied.