



## **Numerical simulations of the super cell formed over Western Bulgaria on 08th of July 2014**

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On 08th of July 2014 a super cell thunderstorm developed over the Western Bulgaria accompanied by severe liquid precipitation and hailstones reaching sizes of 10 cm. This storm caused serious flash flooding and hailstorm, which lead to damages in city infrastructure, buildings, cars traffic jam and so on.

Numerical simulations were performed to evaluate dynamical, microphysical and electrical evolution of the super cell with the non hydrostatic scientific model MesoNH. The initial and lateral boundary conditions for the simulation were prepared using the operational production of the Bulgarian version of ALADIN – spectral regional model, for weather forecasting.