



Occurrence of supercells in Slovakia in 2000 - 2012

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Using the Doppler radar network of Slovak Hydrometeorological Institute, we investigated the supercell occurrence over Slovakia in the period between 2000 and 2012. To detect supercells, we used both direct (mesocyclone detection) and indirect methods, which involve interrogation of typical radar features associated with supercells, such as BWER or hook-echoes. On average four days per year with supercells were found for the investigated period. Occurrence of supercells is strongly inhomogeneous over Slovakia, with eastern part exhibiting more cases than the rest of the country, as well as higher frequency of conditions favourable for supercells. Last, we looked at the synoptic-scale conditions that are associated with development of supercells over Slovakia.