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Analysis of severe convective wind gusts in Serbia

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This work gives a detailed analysis of severe wind gusts associated with convective storms taken from wind reports of the period 2003 - 2016. The analysis is based upon measured wind gusts and radar/satellite images of the Service Hydrometeorological Service of Serbia. Our focus is on the analysis of derechos on the territory of Serbia.

Additionally, also smaller scales of convective wind storms are represented in the analysis that includes a climatology of wind gust measurements with respect to storm mode (e.g. bow echoes), region, and season.

The authors hope that this overview can raise the awareness of forecasters about severe convective wind events and to improve the forecasting of these. Furthermore, this work can contribute to the ESWD data set to build a climatology of thunderstorm wind gusts for this part of Balkans.