

Comment on wcd-2022-27

Anonymous Referee #1

Referee comment on "Supercell convective environments in Spain based on ERA5: hail and non-hail differences" by Carlos Calvo-Sancho et al., Weather Clim. Dynam. Discuss., <https://doi.org/10.5194/wcd-2022-27-RC1>, 2022

The introduction makes a detailed analysis of the state of the art in the study area. The supercell database is reliable and accurately described. The methodology is clear and robust. The results are coherent with previous studies, and they are properly accompanied with tables and figures. The conclusions are consistent with the results and discussion previously carried out. As a result, I recommend the publication of the manuscript after minor corrections that I propose in the following lines.

Major comments

Section 3.2. I would not refer to mesoscale settings by using the ERA5 database. I encourage the authors to change the title of this subsection, as well as all mention of mesoscale throughout the paper.

Minor comments

Line 32: "a convectives storm". Write this sentence in a proper English.

Lines 51 to 61: This paragraph is an enumeration of what other authors did in the past. Try to improve the writing, linking some sentences with others, to engage the reader.

Line 97: Missing dot between "(ECMWF) It".

Line 306: "907 tornadoes" instead of "907 tornado".

The introduction and discussion of the results is quite detailed, but the authors can consider to complete them with the following research:

E. Gascón, A. Merino, J.L. Sánchez, S. Fernández-González, E. García-Ortega, L. López, L. Hermida. 2015. Spatial distribution of thermodynamic conditions of severe storms in southwestern Europe, *Atmospheric Research*, Volumes 164–165, 194-209, <https://doi.org/10.1016/j.atmosres.2015.05.012>.