



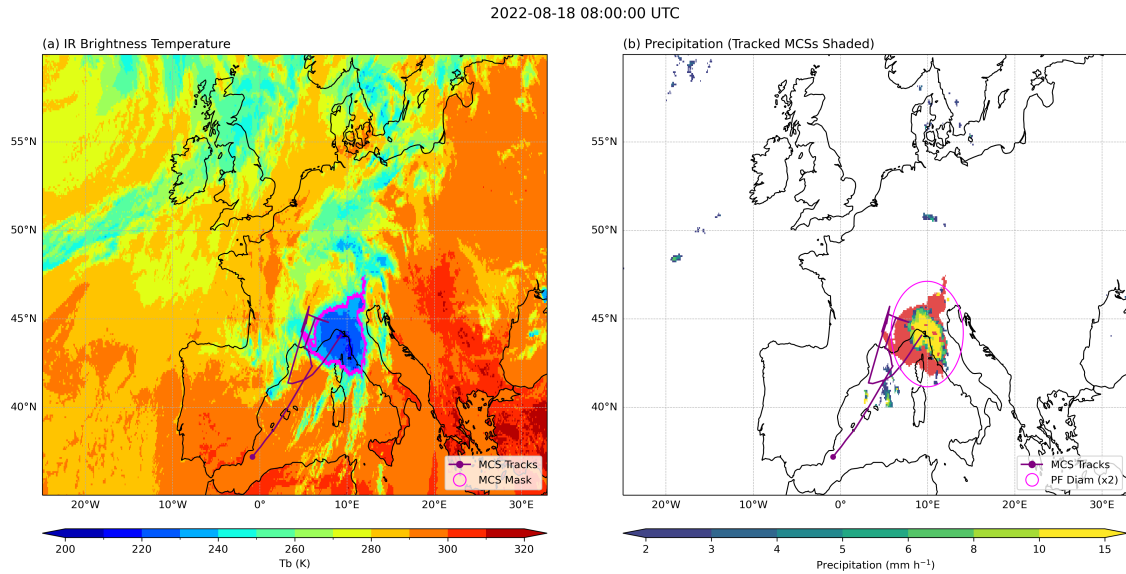
*Supplement of*

## **Analysing 23 years of warm-season derechos in France: a climatology and investigation of synoptic and environmental changes**

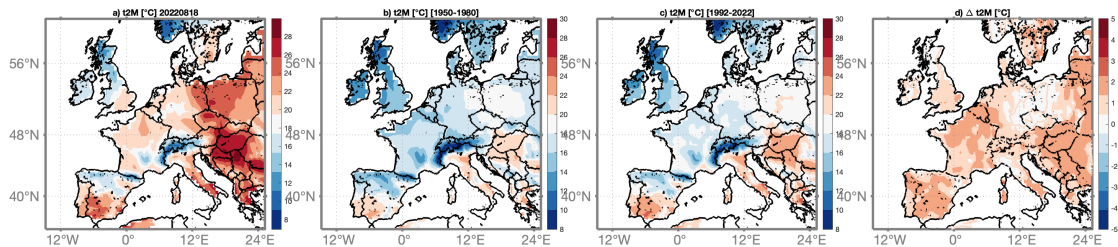
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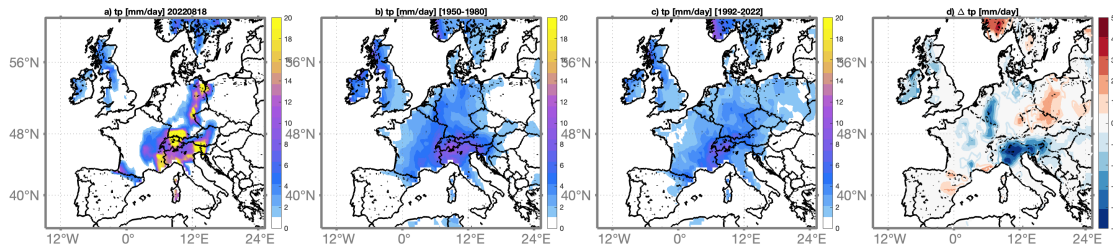
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**Figure S1.** Snapshot of brightness temperature (a) and precipitation rate (b) from MERGIR (Janowiak et al., 2017) and IMERG (Huffman et al., 2019) datasets respectively. The left plot also shows the contour (in magenta) of the detected mesoscale convective system (MCS) using PyFLEXTRKR (Feng et al., 2023).



**Figure S2.** (a) Daily averaged 2 meter temperature (t2M) from E-OBS (Cornes et al., 2018) dataset for the 18 August 2022 event at 08:00 UTC. Average of t2M for the 37 analogues found for the 1950–1980 period (b) and 1992–2022 period. (d) Map of changes in  $\Delta$ T<sub>2m</sub> between factual and counterfactual periods (colored-filled areas show significant anomalies with respect to the bootstrap procedure).



**Figure S3.** Same as S2 for total daily precipitation (tp) from EOBS.

## References

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