

Anonymous Referee #1

It was a pleasure reviewing this paper. The quality of the paper is high. Not only the scientific content is sound, also the structure, clarity and language are very well readable.

The paper covers important aspects of lack of data and scientific understanding that should be tackled by a large European field campaign on severe thunderstorms, while the Italian foci are highlighted specifically. Those Italian foci are well in line with the general idea of the field campaign, as evident from the cited main TIM whitepaper by Fischer et al., and the present paper provides important further details.

We would like to thank the reviewer for the very positive evaluation of the paper.

The introduction nicely covers the context. The State of the Art chapter allows for a good overview on current knowledge and warning practice. The sections on Atmospheric Rivers and Aerosols provide important further motivation for the field campaign. A technical note: One fresh paper that only appeared this year (formally not in 2025, as stated in the References section) could be added to the hail section, as it specifically discusses hail trends for northern Italy: <https://doi.org/10.1038/s41561-025-01868-0>

The reference has been updated and it is now mentioned in the hail section in two sentences.

“... Northern Italy has shown the largest global increase in very-large hail frequency (up to +0.03 events per decade; Battaglioli et al., 2026), ... A record of US\$6 billion loss has been experienced in Northern Italy in 2023 (Battaglioli et al., 2026).”

Another technical remark: At some instances (Fig. 3, for example) the F-Scale is used for the rating of tornado intensities, at other instances the EF-Scale is used. As the EF-Scale is defined mostly for building codes and building practices in the USA (and specifically defined by the purpose of US buildings instead of generic stability properties), it usually cannot be applied to European buildings. In other words, it is not defined for many European Damage Indicators (DIs). For this reason, it would be correct to consistently refer to the F-Scale throughout the paper (for historical ratings, or to the IF-Scale for recent or freshly rerated events).

F-scale and IF-scale are now used throughout the paper.

The Open Issues section is well written too. The paragraph starting with line 411 is a very important one. Same for chapter 3.3. The paragraph starting with line 496 provides an important motivation, chapter 3.8 too. Chapter 4.2 mentions the relationship to civil protection aspects and highlights the importance of analyzing the ground impact of severe convective storms. In the Conclusions section, the paragraph starting with line 616 is again a quite important one.

To summarize, this paper seems to be a good scientific basis integrating inter-connected disciplines in a well-designed multi-disciplinary approach for the described and planned field campaign activities in Italy. I congratulate the authors.

Again, thanks for your appreciation of the paper.