The manuscript “Hail events in Germany, rare or frequent natural hazards?” presents a strong and innovative analysis of hail events in Germany, utilizing advanced radar techniques and a diverse set of data sources. However, its impact is limited by a relatively short timeframe, over-reliance on radar data without sufficient validation or correction mechanisms, and a somewhat superficial analysis of auxiliary data sources such as crowd-sourced observations and insurance claims. There is significant potential for improvement.

Strengths:

1. Comprehensive Data Integration: The study stands out for its integration of diverse data sources, including radar, crowd-sourced reports, and insurance claims. This multifaceted approach provides a well-rounded perspective on hail events in Germany, ensuring a more complete understanding than relying on any single data type.
2. Innovative Use of Radar Technology: The application of advanced radar methods like MESH and VII demonstrates the authors’ technical proficiency. By using modern radar data to estimate hail sizes and occurrences, the study pushes the boundaries of traditional meteorological research.
3. Detailed Case Study and Real-World Application: The case study of the August 2021 hail event effectively highlights the strengths and limitations of crowd-sourced data, providing practical insights into how well lay observations compare with radar measurements. This adds a valuable real-world dimension to the analysis.

Directions to improvements:

1. Short Timeframe and Lack of Trend Analysis: The six-year period (2018–2023) used in the radar analysis is too brief to establish meaningful long-term trends. As hail events vary significantly year-to-year, a longer dataset or a more in-depth discussion of the limitations imposed by the short timeframe would enhance the study’s credibility.
2. Over-Reliance on Radar Data with Limited Corrections: While radar data is central to the study, its known issue of overestimating hail sizes is acknowledged but not adequately corrected. This over-reliance, without stronger validation or adjustment methods, weakens the conclusions and leaves room for potential inaccuracies.
3. Superficial Treatment of Crowd-Sourced Data and Insurance Claims: Though crowd-sourced data and insurance claims are included, the analysis does not fully explore their potential biases (e.g., urban reporting bias) or offer solutions to mitigate them. The insurance data, in particular, is not sufficiently explored for

regional or structural factors, making this section feel underdeveloped relative to the overall scope of the study.