

Peer Review

Review of: "Turkey's Earthquakes: Damage Prediction and Feature Significance Using A Multivariate Analysis"

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The article entitled Turkey's Earthquakes: Damage Prediction and Feature Significance Using a Multivariate Analysis is quite timely and valuable in adding to the literature on disaster preparedness. The critical issue it addresses is related to earthquake damage prediction in Turkey, a region quite prone to seismic activities. However, the study is not without its limitations. The generalizability of the findings might be questioned due to the small dataset, bound to 99 data points for historical reasons. Assuming a circular pattern of damage propagation was helpful for simplifying the modeling; however, it simplifies the true nature of seismic wave behavior, which could have a significant impact on predictive accuracy. While the discussion of limitations is present, it could be more elaborate to derive a better understanding of the challenges faced during the analysis. Finally, though the study refers to other models like RECAST and ETAS, a direct performance comparison would help better contextualize the contributions of this study. Overall, this is a well-conducted piece of research that provides much insight into the meaningful involvement of policymakers and disaster management agencies. With an increased dataset size, a richer set of features, and further discussion on limitations, this work can be a cornerstone for advancing earthquake preparedness.

Declarations

Potential competing interests: No potential competing interests to declare.