

Detail comments and clarification of the manuscript egosphere-2025-6363:

1. L140–141: Simulation approach

- a. The manuscript mentions 100 simulations using 180 standing trees, but the methodology is not described. Please clarify the sampling approach assumptions and whether resampling techniques were applied.

2. L153–170: Wind speed and wind condition

- a. The use of maximum wind speed at 10 m height to calculate damage probability requires further justification. Consideration of wind speeds at different reference heights could help assess whether model performance (e.g., AUC, accuracy, optimal cut-point) can be improved.
- b. The manuscript focuses on maximum wind speed but does not describe the overall wind conditions during the winter 2020–2021 period. A summary of wind speed distribution (minimum, maximum, mean, and percentiles) would provide important context for interpreting the results.

3. L215–229: Model parameter clarification

Several key variables require clearer definition to ensure reproducibility:

- a. D0 derived from DBH: Clarification is needed on how D0 is derived from DBH, including the underlying equation or assumptions. Please explain why D0 was not directly measured.
- b. TMC (turning moment coefficient): The definition remains unclear. Please clarify whether TMC_ratio is used and how it is parameterized.
- c. MOE and MOR moisture condition:
 - The moisture condition of the wood is not specified. Indicate whether values correspond to green or air-dried conditions (e.g., 12% MC).
 - If dry values are used, clarification is needed on whether conversion to green conditions was applied, as wind damage occurs under green conditions. Reference to established conversion approaches (e.g., Unterwieser and Schickhofer, 2011) would strengthen this section.
 - f_{knot} parameter: The magnitude and derivation of f_{knot} are not described. Provide typical values or ranges and clarify whether this factor is measured, empirically derived, or sourced from literature.

- W_{stem} definition: The definition of W_{stem} is unclear. Specify whether it represents total stem weight or a defined portion (e.g., merchantable stem). Please clarify whether it is directly measured or estimated using empirical models.

4. L280: Please add a dot between 0.1 and the cut-point.

5. L288–289: Model performance assessment

- The procedure for conducting 100 repetitions of balanced damaged and undamaged samples is not clearly described. Please clarify how datasets were balanced and whether resampling or cross-validation was applied in the AUC assessment.

6. L359–363 (Table 1): Please include the number of trees for damaged and standing categories for each species.

7. L395–399 (Table 2): Please include the number of samples used for each model and the associated damage threshold.

8. L401 (Figure 3): Please provide the total number of samples for each model, including cut-point and damage threshold, within the performance metrics.