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Figure 2. Methodological approach used in the study. Box A: The input data (Soil data, Seasonal data, Tree data and Wind + Exposure) are processed and fed into ForestGales to obtain the Critical Wind Speed and subsequently the Probability of Damage. In addition, the input datasets and the Critical Wind Speed datasets are used in a machine learning (ML) algorithm (XGBoost). The ForestGales calculated probability of damage, and the machine learning datasets are evaluated against a validation dataset - the recorded tree falls along powerlines during the winter 2020-2021 to assess the performance of the two methods. Box B: Graphical representation of the different model options considered in the study split into three categories: 1. the Seasonal Scenario used (section 2.3.1 in the text), 2. the Tree Data processing (section 2.1.2 in the text) and 3. the use of the Wind and Exposure data (section 2.2 & 2.3.2 in the text).