

## WOODQUAKES IN WOOD

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Wood as a material exhibits a complex mechanical response. We study the avalanches in small wood samples in compression (T. Mäkinen et al., submitted for publication). Acoustic emission or crackling noise in the deformation is similar to what is seen in rocks and laboratory tests of porous, brittle materials. Both the distribution of events energy and the waiting (silent) time distribution follow power-laws. The stress-compressive strain response exhibits the typical characteristics of wood and other porous materials with clear signatures of the localization of the compression deformation to "weak spots" or, here, softwood layers. This can be directly identified using Digital Image Correlation. Even though material structure-dependent localization takes place, it does not change the fact that avalanche behavior is scalefree and merely modifies the event rate of avalanches.