

## EXPERIMENTS IN LAYERED SNOW SAMPLES UNDER SHEAR AND TENSION

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ABSTRACT: Avalanche release phenomenon by nature involves the failures by both tension and shear. Clear illustration of these failure phenomena individually or as a combination was not known till now. Lot of controversies still prevails regarding the fact whether initiation of failure is tensile or shear. It is necessary to evaluate the fracture properties of the snow pack under specific conditions in order to characterize or map this behavior physically to the field situations. Earlier different studies and experiments on homogenous snow were performed to idealize this scenario. Real perspective of the avalanche phenomenon can be obtained by analyzing the layered snow under shear and tension loading. In this communication such a process has been attempted experimentally in the cold lab under controlled conditions. The comparison of the tensile and shear properties has been projected clearly with the help of experiments, which reveals the role of the respective properties in deciding the fracture behavior.

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