



## **Statistical estimation of the validity of different snow rheologies inferred from chute experiments**

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Velocity profiles of chute flows of snow have been measured on the 32 m long and 2.5 m wide SLF snow chute. We present results of velocity profile measurements performed with a new 8x5 array of optoelectronic reflexivity sensors, which allow a flow normal spatial resolution of 1 cm within the basal layer of the chute flow. The new sensor is able to grasp the transition between the high shear and low shear layer of the flow. Finally, we discuss the validity of different snow rheologies previously suggested for the interpretation of velocity profiles of chute flows of snow by means of Bayesian inference.