



## **First measurements of pressure and velocity on breaking mounds in Taconnaz avalanches path : Event of 29th December 2010**

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This study describes the instrumentation and the obtained experimental data related to velocity and pressure measurements set up in the avalanche protection system of Taconnaz in 2009. First, the problem related to the impact pressure stemming from snow avalanches is discussed on the basis of experimental measures revealing very complex loading spectra. More particularly, open questions related to the incident flow regime and the "flow-obstacle" geometry, and to how the mean pressure and fluctuations can be influenced, are discussed. Then, the Taconnaz avalanche path (Chamonix, France), characterized by huge dimensions, is introduced. In the framework of the Alcotra DYNAVAL Interreg project, the new defence structures –retarding mounds in particular- have been equipped with sensors in order to measure the local velocity in the vicinity of those obstacles as well as the impact pressure stemming from snow avalanches. The first measurements, obtained from the avalanche that occurred at the end of December, 2010, are presented.