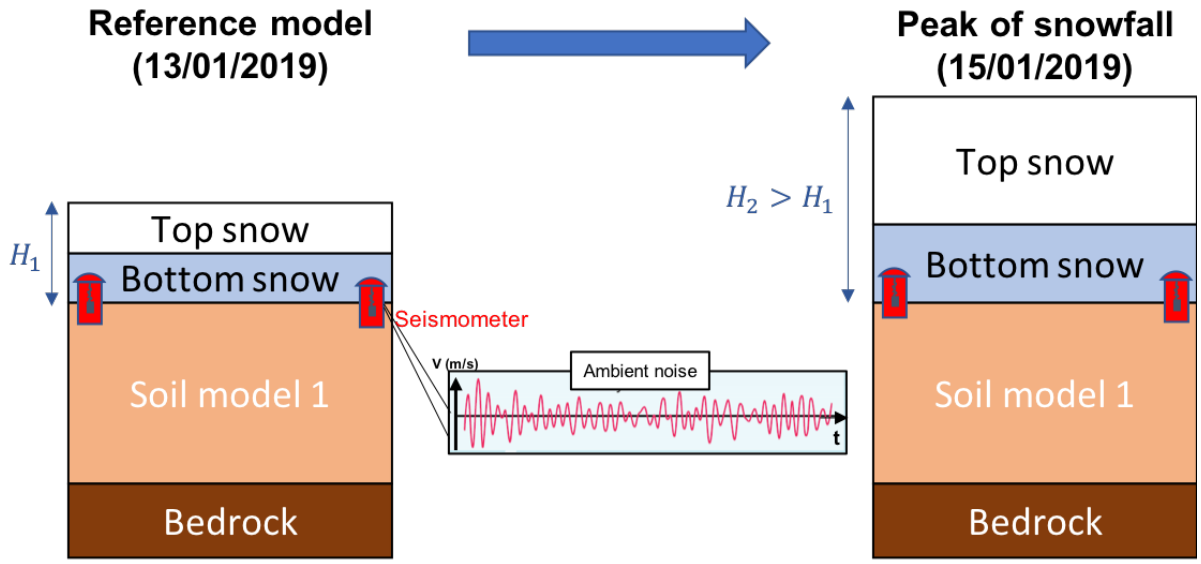

Figure 1 : Schematic 1-D cross-section of the instrumentation of the study site, with the location of seismic sensors buried in shallow subsurface, and the modelled layered medium at two temporal steps (before and during peak of snowfall event 2, as an example). The only changes between these models is the increasing snow depth and mechanical properties of both snow layers, as precised in Table 4.

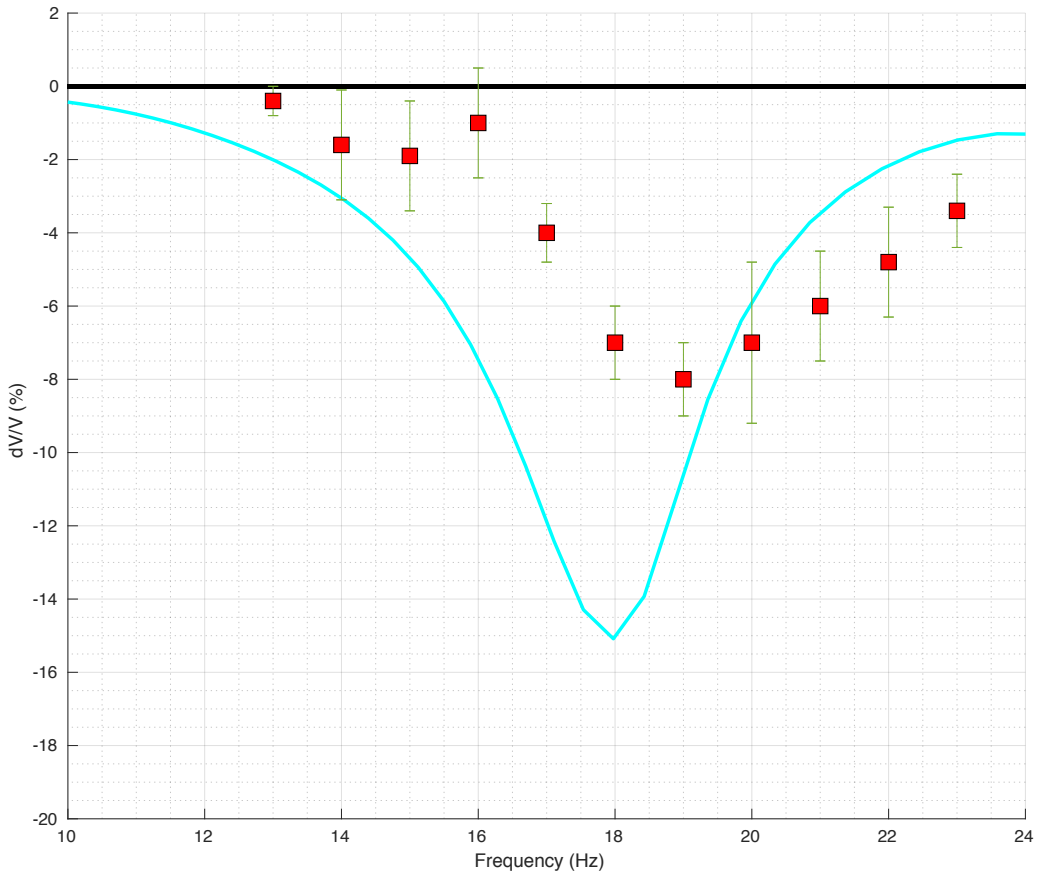

Figure 2 : Results of the dV/V modelling for snowfall event 2 (SF2), with modeled dV/V response with respect to frequency (blue curve) and observations highlighted in red squares, which frequency is fixed to the center of the frequency band of the measured dV/V. For modelling the snowpack , we used a 10 cm resolution (depth-averaging temperature and density profiles with 10 cm thick sub-layers).