

**Determining snow avalanches, debris flows and rock fall runout distances on an active colluvial fan. Innfjorddalen, Norway**

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Colluvial fans are built up by slope processes (Blikra, 1998). Those processes are often discussed separately, while the real picture shows a complex system with several interlinked processes occurring in the same area. The main goal of this master thesis is to understand how slope processes interact and how that interaction conditions run-out distances. The study area is located near Gråfonnfjellet (1475 m.s.l), in the east slope of Innfjorddalen. The glacially shaped valley with alpine mountains has a north-south orientation. Mean annual precipitation is 1500 mm, and the area lies within the Western Gneiss Region of Norway. Generations of snow avalanches, debris flows, landslides and rock falls have over time built up a 1.5 km<sup>2</sup> large convex fan, lying on top of detachment area of several landslides (Schleier, 2013).

**References:**

- Blikra, L., H. & Nemeč, W. (1998). Postglacial colluvium in western Norway: depositional processes, facies and paleoclimatic record. *Sedimentology*, 45, 909-959.
- Schleier, M., Hermanns, R., & Rohn, J. (2013). Spatial distribution of rockslide deposits and their morphological features suggest timing and palaeo-environmental conditions for rock slope failures in Innerdalen and Innfjorddalen, Møre og Romsdal County, Western Norway. *Italian Journal of Engineering Geology and Environment*.