

Impacts of ROS events on mountain snow cover in central Japan

Kenichi UENO^{*} (U. Tsukuba), Yosuke NAMIMA (LY Corporation) *e-mail: ueno.kenichi.fw@u.tsukuba.ac.jp

Objectives Tendency of Rain On Snow (ROS) events were revealed using long-term three AMeDAS station data over 1200m a.s.l. in Central Japan (Ueno, 2023), and their impacts on snow cover structures were identified by the 15 years snow pit observation in Sugadaira highland (Namima and Ueno, 2024).







Conclusion Rain on the patchy mountain snow cover causes abrupt snow bottom melting. Extratropical cyclones induced the ROS events, and they marked major stratigraphy with increasing of melt form ratio in the midwinter snowpack. The tendency of ROS occurrences varied depending on the site location/elevation, and decadal scale oscillation was found in the AMeDAS record in Sugadaira. Activities of cyclone tracks and ENSO in early winter season determine the year-to-year variation of snow cover starting date that may link to the metamorphose of mid-winter snow cover through ROS events.



References: (←) Ueno, K. 2023: Assessments of long-term

(cyclone activity) and c) ENSO reflected the snow cover starts on Dec.

