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[JJ] Evening Poster | M (Multidisciplinary and Interdisciplinary) | M-GI General Geosciences, Information Geosciences & Simulations

## [M-GI25]Environmental changes in mountainous area

convener:Keisuke Suzuki(Department of Environmental Sciences, Faculty of Science, Shinshu University), Yoshihiko Kariya(Department of Environmental Geography, Senshu University), Chiyuki Narama(新潟大学理学部理学科, 共同), Akihiko SASAKI(Department of Geography and Environmental Studies, Kokushikan University)  
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Mountainous areas provide water resources to the populated downstream areas, protecting the diversity of ecosystem and providing tourism attraction. To access the mountain environment changes and mitigate the impacts of global warming influences, a cross-cutting session is proposed to share the scientific knowledge among various fields; such as climatology, hydrology, geography, glaciology, water/carbon/material cycle, eco-diversity, etc.

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## [MGI25-P12]Mass balance and recharge mechanism of glaciers and snow patches in northern alps

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Keywords:glacier, mass-balance, SfM, aerial-photography

In the Northern Alps, many snow patches formed by the large amount of snowfall caused by the winter seasonal wind are distributed (Higuchi et al., 1971 & Asahi, 2013).

In addition, Fukui & Iida (2012, 2018) found that the six snow patches existing in the North Alps are glaciers by the discovery of ice bodies by underground radar and the confirmation of flow by GPS survey. Measurement of the mass balance of glaciers is generally carried out by the stake method, but it is unsuitable for heavy snow, the North Alps, and the mass balance is not clear.

Therefore, in this study, we calculated the mass balance of glaciers and snow patches distributed in the Northern Alps using Cessna aerial photograph and SfM analysis software.