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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-P15]Temporal and spatial variations of stream water chemistry observed in the Mt. Norikura headwater catchment

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Keywords:perennial snow patch, groundwater, ephemeral stream

In this paper, we present the temporal and spatial variations in chemical characteristics of surface runoff due to rainfall and snowmelt in the Mt. Norikura alpine region, northern Japanese Alps. Surface flowing water was collected on debris land and gullies which able to see surface stream for several days after rainfall. In addition to a water collecting, rainfall gauging and collecting was conducted. Sampled water was used for conductimetry, pH measurement, and Major ions analysis.

From the results obtained in water quality investigation, it was found that  $\text{HCO}_3^-$ ,  $\text{Ca}^{2+}$  and  $\text{SO}_4^{2-}$  concentration of spring water on a gully is higher than that of ephemeral stream water. Based on field survey, it is presumed that the spring water is provided in the depth deeper than the depth of interflow which generated for several days after rainfall. Additionally, comparatively high  $\text{SO}_4^{2-}$  concentration suggests that  $\text{SO}_4^{2-}$  is generated by oxidation of ferric sulfide. Despite during a non-rainfall period, Surface stream that has these qualities was observed at one observation point during the whole observation period. It suggests that perennial snow patch stably supply below a ground water locally. Besides, from the results obtained in water quality investigation on debris land, it was found that the spatial difference of water quality of interflow is big considerably.