

[JJ] Evening Poster | A (Atmospheric and Hydrospheric Sciences) | A-CC Cryospheric Sciences & Cold District Environment

[A-CC28]Glaciology

convener: Takayuki Nuimura (Chiba Institute of Science), Ishikawa Mamoru (Hokkaido University), Kzutaka Tateyama (国立大学法人 北見工業大学, 共同), Hiroto Nagai (Japan Aerospace Exploration Agency)

Wed. May 23, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

The cryosphere is a fundamental component of the earth system. It is a region where snow and ice exist in the form of glacier/ice sheet, snow cover and snowfall, frozen ground, sea ice and fresh water ice, and they play a critical role in the global environment under the interactions with atmosphere, ocean, ecosystem and others. In this session, research results on physical and chemical characteristics of snow and ice, variations and dynamics of cryospheric environment, roles of the cryosphere on the earth and other planets will be discussed broadly, regardless of the research method.

[ACC28-P02]Daily variation of supraglacial lakes in the southern Inylchek Glacier

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Keywords: supraglacial lake, drainage, debris-covered glacier, englacial channel

In the eastern Himalayas and Karakoram, sudden large-scale drainage and flooding can occur from debris-covered glaciers that lack a large proglacial lake. This type of glacial lake outburst flood (GLOF) differs clearly from large proglacial lakes. Thus, these studies indicate that debris-covered glaciers that lack a large proglacial lake can have one or more supraglacial lakes vanish when a sudden, large drainage occurs through englacial/subglacial channels, sometime leading to dangerous flooding.

It has been clarified that seasonal variation of supraglacial lakes exist as variation of supraglacial lakes, but shorter period variation are not disclosed. Therefore, in this research it is to elucidate the daily variation of supraglacial lakes.

Using field survey in 2017 plus satellite data from the 2014-2017 period, we analyze the daily variation of supraglacial lakes on the Southern Inylchek Glacier in the central Tien Shan.