

## Analysis of rock glacier flow by Differential InSAR on Argentine Andes

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Monitoring of rock Glacier is very important because not only for climatological index of global warming but also water resource for drinking and irrigating on Argentine Andes area. However, spatial distribution and its amount are not estimated due to the broad mountain area and difficulties of field survey. This study aims to monitor rock glacier by Differential InSAR technique using APLS PALSAR data. Surface of rock glacier is covered with boulders and its flow velocity is about 1m/year.

Study area is Cordon Del Plata mountain range, where is located between Santiago, the capital of Chile and Mendoza city, Argentina. Stationary observation has been carried on one of the rock glacier on this area by IANIGLA (Instituto Argentino de Nivologia, Glaciologia y Ciencias Ambientales) . IANIGLA developed rock glacier inventory more than 30 years ago. At first, we compared with DInSAR result with this inventory and the movement of mountain area showed good correspondence with old rock glacier inventory. Furthermore, we can detect the seasonal change of flow velocity of rock glacier by time series analysis result. In this summer, we will have a field survey at this area to measure the flow velocity by DGPS and other physical parameters and plan to validate our DInSAR results.

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