

# MONITORING OF SPITSBERGEN GLACIERS ACTIVITY BY SEISMIC METHOD

A.V. Fedorov, V.E. Asming

*Kola branch of Geophysical service of RAS, Apatity, Murmansk region, Russia*

**Abstract.** The paper presents the first results of using automatic detector-locator of seismic events for continuous monitoring of glaciers activity by the single three-component seismic station data for a three years period on Spitsbergen. The temporal and spatial distributions of the glacier-related events are obtained for the south part of Western-Spitsbergen Island. Seasonal variations of number of the events are revealed. Areas of short-term activations of Penck glacier are found probably connected with large-scale moving of the glacier.

**Keywords:** glacier, calving, seismic event, automatic detection.