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Earthquake-induced deformations on ice-stream landforms in Kuusamo, eastern Finnish Lapland

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Abstract

Kuusamo in eastern Finnish Lapland is characterized by ice-streamlined landforms as well as clusters of historical and recent earthquakes ($M_w < 4$). Since recent earthquakes are often found to be located on the traces of postglacial faults (PGFs) within the Fennoscandian shield we postulate that some part of the ice-stream landforms have been deformed by the past earthquakes in Kuusamo. Airborne LiDAR (Light Detection And Ranging) DEMs (digital elevation models) revealed significant numbers of postglacial deformations, such as liquefaction

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