

Kazanskij, A. B.

Sticky spots and a catastrophe possibility in West Antarctica. (Russian, English)

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The author develops a model of glacier motion without sticky spots at the glacier's bed (a model of ideal gliding along the bed). Energy balance equation takes into account a dissipation process due to pseudo-turbulence inside the lateral parts of the glacier/ The pseudo-turbulence in the boundary layers provides deceleration of the ice flow, and possibility of catastrophic avalanche is discussed.

Reviewer: Andrei Zemskov (Moskva)

MSC:

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elastic-plastic flows; turbulence energy dissipation; empirical Glen's flow law

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