

Basal conditions of fast-flowing outlet glaciers and ice streams from 3D inversions

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High-resolution observations of surface and bed elevations have been acquired recently on several outlet glaciers and ice streams during Operation IceBridge field campaigns. Using these data complemented with recent observations of ice surface velocities, basal traction under Jakobshavn, Helheim, 79 North and Petermann glaciers are constrained using the standard inversion methods. Novel features of these inversions are the high spatial resolution and the full-Stokes treatment of the ice momentum balance.