

# グリーンランド北東部氷帽の質量収支モデル計算

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## Mass balance model estimation for ice caps in northern Greenland

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Greenland has large ice mass and its contribution rate to sea level rise by recent warming is large. Saito et al.(2014) showed by satellite images that the surface level change of some ice caps in northern Greenland is three times as large as that revealed by Bolch et al. (2013). We estimated surface mass balance for one of the ice caps by the mass balance model of Hock (1999). The model shows spatial variation of surface mass balance for each ice caps. The input data for the model is DEM for the ice caps, surface condition at the initial condition and climate data (air temperature and precipitation) near the ice caps. In this study, meteorological data at Thule climate station, which is about 100 km south to the ice caps, was used for the model calculation. The result of the calculation depends on the tuning factor for both accumulation and ablation. The result was compared with the change of the surface height by Saito et al (2014).

### References

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