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**Bimodal albedo distributions in the ablation zone of the southwestern Greenland Ice Sheet**

Surface albedo is a key variable controlling solar radiation absorbed at the Greenland Ice Sheet (GrIS) surface, and thus, meltwater production. Recent decline in surface albedo over the GrIS has been linked to enhanced snow grain metamorphic rates and amplified ice-albedo feedback from atmospheric warming. However, the importance of distinct surface types on ablation zone albedo and meltwater production is still relatively unknown, and excluded in surface mass balance models. In this study, we analyze albedo and ablation rates using in situ and remotely-sensed data. Observations include: 1) a new high-quality in situ spectral albedo dataset collected with an Analytical Spectral Devices (ASD) spectroradiometer measuring at 325–1075 nm, along a 1.25 km transect during three days in June 2013; 2) broadband albedo at two automatic weather stations; and 3) daily MODerate Resolution Imaging Spectroradiometer (MODIS) albedo (MOD10A1) between 31 May and 30 August. We find that seasonal ablation zone albedos have a bimodal distribution, with two alternate states. This suggests that an abrupt switch from high to low albedo can be triggered by a modest melt event, resulting in amplified surface ablation rates.