

Supplementary information

Heterogeneity in topographic control on velocities of Western Himalayan glaciers

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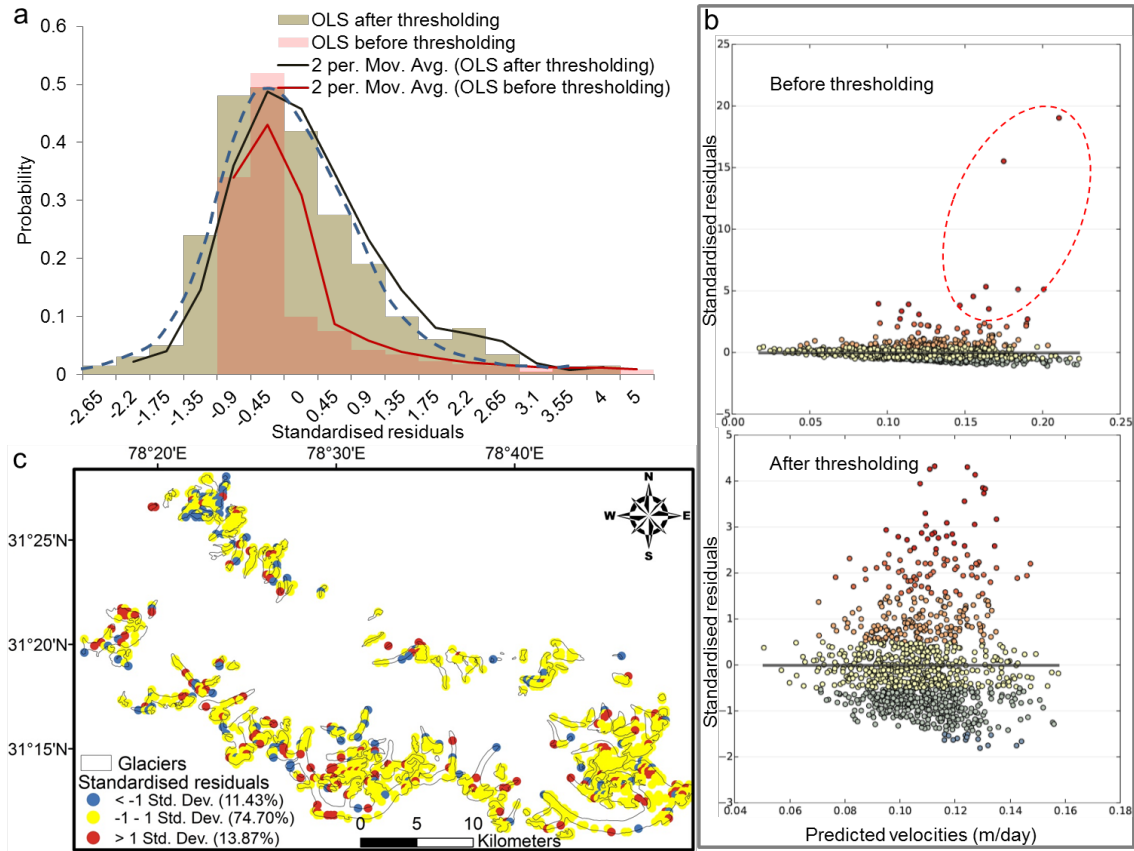
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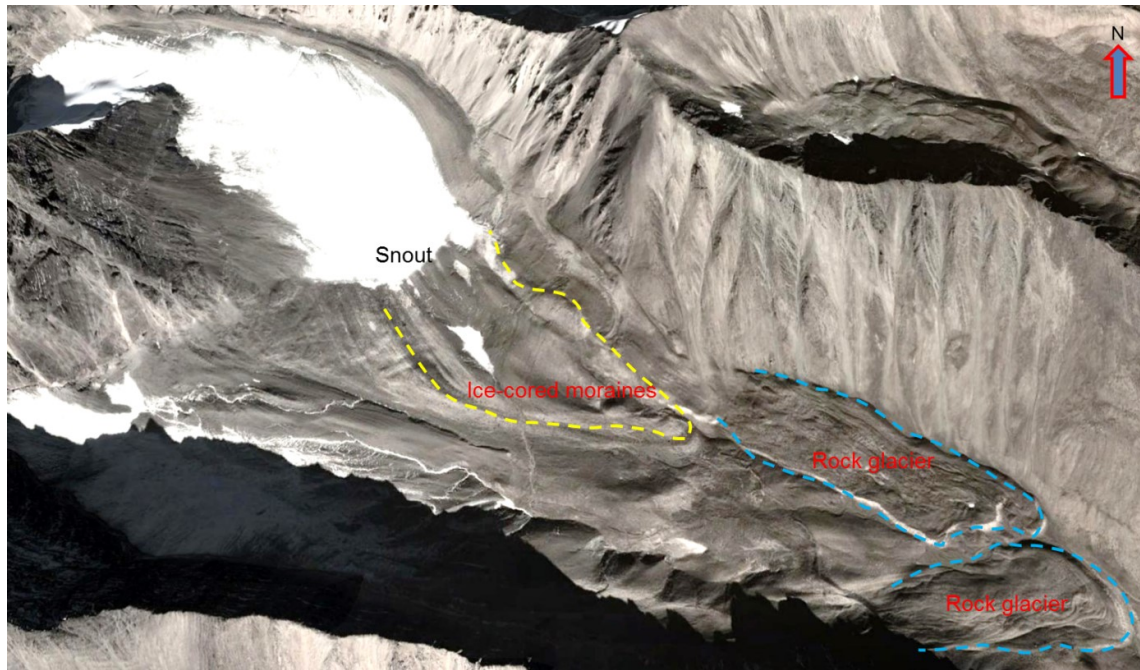
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Supplementary Fig. 1 | Results of ordinary least squares (OLS) linear regression with an adjusted R^2 of ~57%. (a) Histograms of the OLS-derived standardized residuals (model over- and under-predictions) of the predicted velocities before and after removing the satellite-derived velocity values that exceed 2 standard deviations. The moving average curves represent the skewness with respect to a normal distribution (dashed blue curve). **(b)** Plots of standardized residuals in relation to the OLS-predicted velocities before and after removing the satellite-derived velocity values that exceed 2 standard deviations (which correspond to the residual values within the dotted red ellipse). **(c)** Spatial distribution of the standardized residual values. Blue dots indicate under-predictions, whereas red dots represent over-predictions beyond the 1 standard deviation limits.



Supplementary Fig. 2 | Proglacial permafrost occurring as ice-cored moraines (dashed yellow curve) and rock glaciers (dashed blue curves). The contextual information for this glacier can be determined from Fig. 2. This Google Earth image was collected on 17 December 2016, and the data provider is CNES/Airbus.