Description of datasets for: Ground ice content predictions for the Northern Hemisphere permafrost region at 1-km resolution

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The dataset consists of four raster files (GeoTIFF format) at a 30 arc-second (~1 km) spatial resolution and associated layer files (*.lyrx). The predictions are representative of pore and segregated ice contents in the topmost five meters of permafrost. Each raster is in the geographical WGS 1984 (ESRI: 4326) coordinate system.

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1 Spatial predictions of volumetric ground ice content

The 32-bit raster files represent the mean and standard deviation of predicted volumetric ground ice (VIC) content over 100 randomized distance-based model cross validations. Included are predictions from two statistical modelling techniques: generalized additive modelling (GAM) and generalized boosting method (GBM).

File naming convention:

VIC_XXX_YYYY.tif: where XXX defines the used modelling method:

Abbreviation	Description
GAM	Generalized additive modelling
GBM	Generalized boosting method

and YYYY defines the statistic:

Abbreviation	Description
mean	Mean of 100 model realizations
sd	Standard deviation of 100 model realizations

The optional ArcGIS Pro layer files (VIC_XXX_YYY.lyrx) have been named accordingly. The layer files can be used to view the files using the symbology applied in the related journal manuscript. To view the embedded raster symbology, open the layer file in ArcGIS Pro and it will automatically import raster values from the corresponding GeoTIFF file.