

Supporting Information for ”Diurnal temperature range expands with warming for temperatures above the melting point”

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Introduction Figure S1 shows correlations of monthly mean meteorological variables observed in Ny Ålesund. Figure S2 shows grid-point wise DTR trends in CMIP6 models as a function of mean surface air temperature.

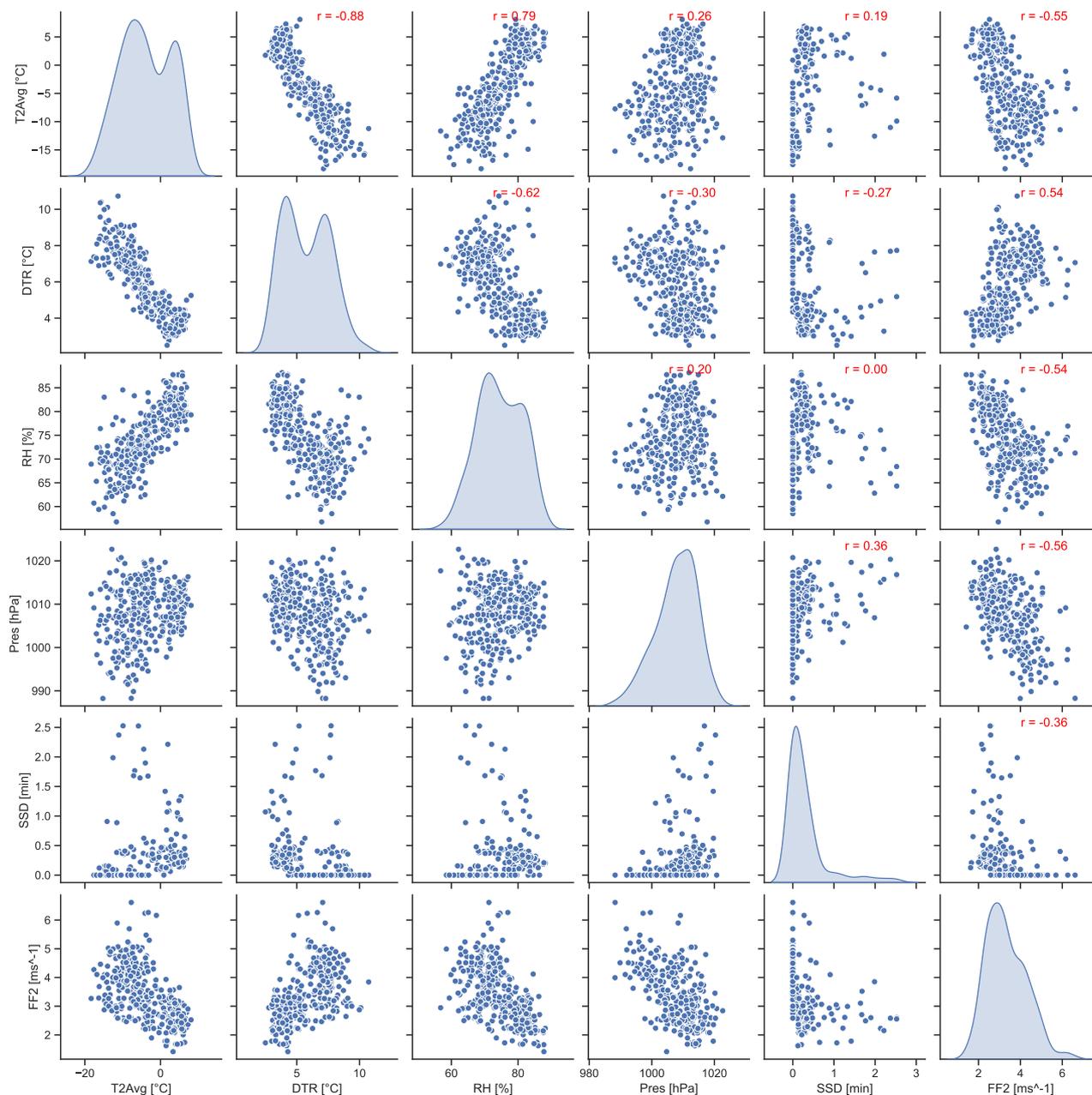


Figure S1. Correlations between monthly means of meteorological variables in Ny Ålesund (2012-2022) and corresponding Pearson correlation coefficients. Frequency distributions are shown in the diagonal. Shown are near-surface air temperature (T2Avg), diurnal temperature range (DTR), relative humidity (RH), surface pressure (Pres), sunshine duration (SSD) and near-surface wind speed (FFS)

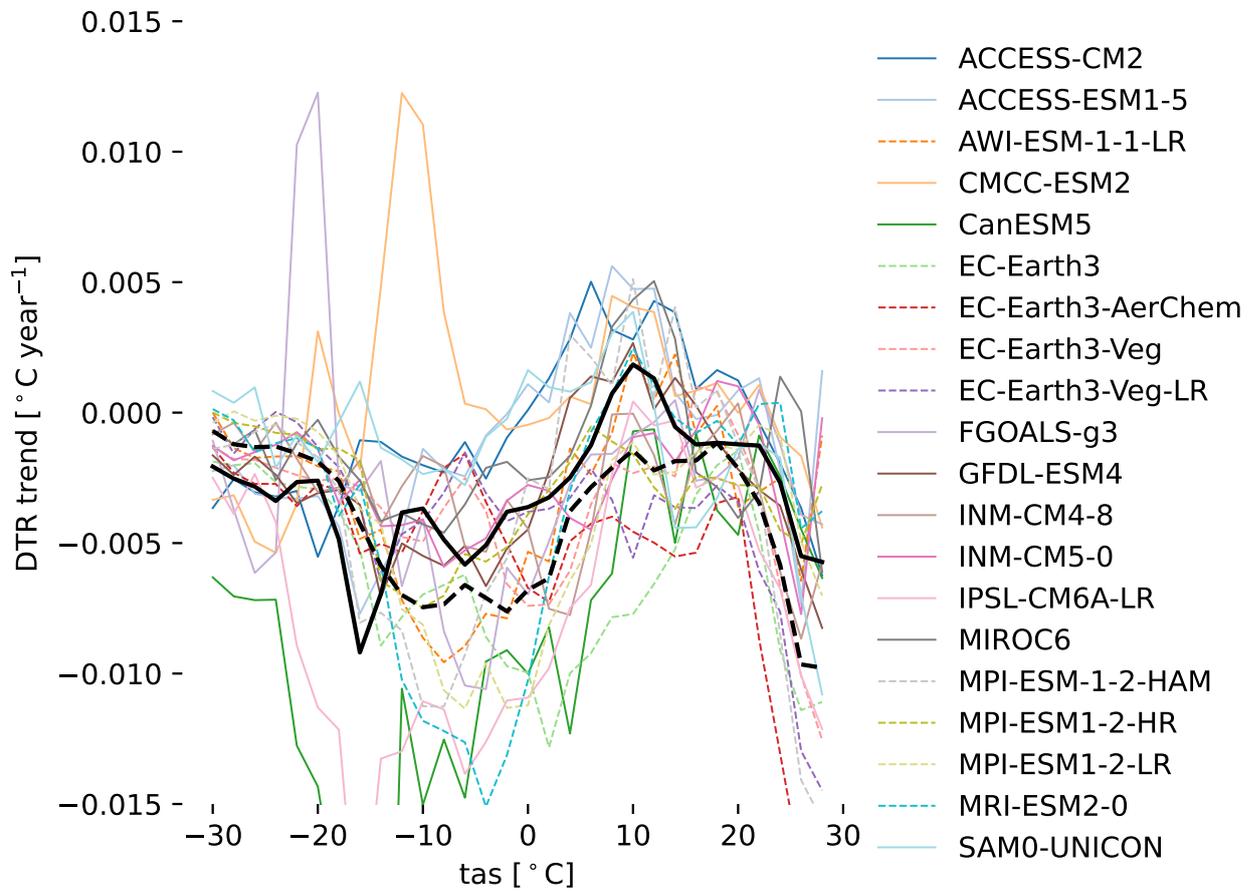


Figure S2. Temperature-dependence of DTR trends in CMIP6 models. Dashed lines show models with a particularly weak representation of the melting-point effect as in Fig. 4 of the main manuscript. Black lines show the ensemble mean for models with (solid) and without (dashed) a substantial DTR minimum near the melting point. Data from historical run 1970-2014, see table 1 for references to datasets.