

MAST 467/667: Introduction to Polar Oceanography (Fall 2021)
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Nov.-17, 2021

Workshop/Homework-11: Spatial Average of Tmax below Mixed Layer

Data: Ocean Melts Greenland (OMG) at <https://omg.jpl.nasa.gov/portal/>

Introduction. We are more than ready for scientific work. The next step will be to use our bin average profile data of potential temperature, absolute salinity, and potential density to estimate the potential temperature maximum of the Atlantic waters below 100-m depth.

Goal. Using loops and conditional data assignments within R or MatLab

Assignment:

1_Create a file with latitude, longitude, year, Tmax, D(Tmax), S(Tmax), and year where D(Tmax) and S(Tmax) for each year.

2_Send me this file as an ascii file for further distribution via our web-site.

3_Average the Tmax(x,y,t) for a specific year “t” that you estimated above for each station at location (x,y) to get Tmax_avg(t), please describe the variation of this spatial average of Tmax from 2016 through 2021.