LAB 8 : SST temperature range

The purpose of this lab is to demonstrate how to calculate the difference between the all-time maximum temp and the all-time minimum temperature from a monthly sea surface temperature data set. This difference represents the temperature range at each location during the given time period. Your task is to identify areas with high and low ranges and then to think about what may cause the spatial variability in the SST temperature range.

Directions:
Navigate to our often-used SST data set:

https://iridl.ldeo.columbia.edu/SOURCES/.NOAA/.NCEP/.EMC/.CMB/.GLOBAL/.Reyn_SmithOIv2/.monthly/.sst/

Restrict the longitude range to include the area between the dateline and the middle of the tropical Atlantic Ocean. Restrict the latitude to range between 15S to 35N. Restrict the time period to begin in Jan 2000 and end in Dec. 2022.

Now click on the "Data Filters" tab and notice the link that calculates the Maximum. Select the Maximum over TIME since we will calculate the max temp during the 2000-2022 time period. Repeat the above, but now choose Minimum over time. Finally, subtract the two and view as a colored map.

For full credit, submit an ENLARGED map (6pts) and identify where the range is the lowest (1pt) and where the range is the highest (1pt). Also describe the signal in the tropical east Pacific (2pts). 10pts

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NO LINKS.