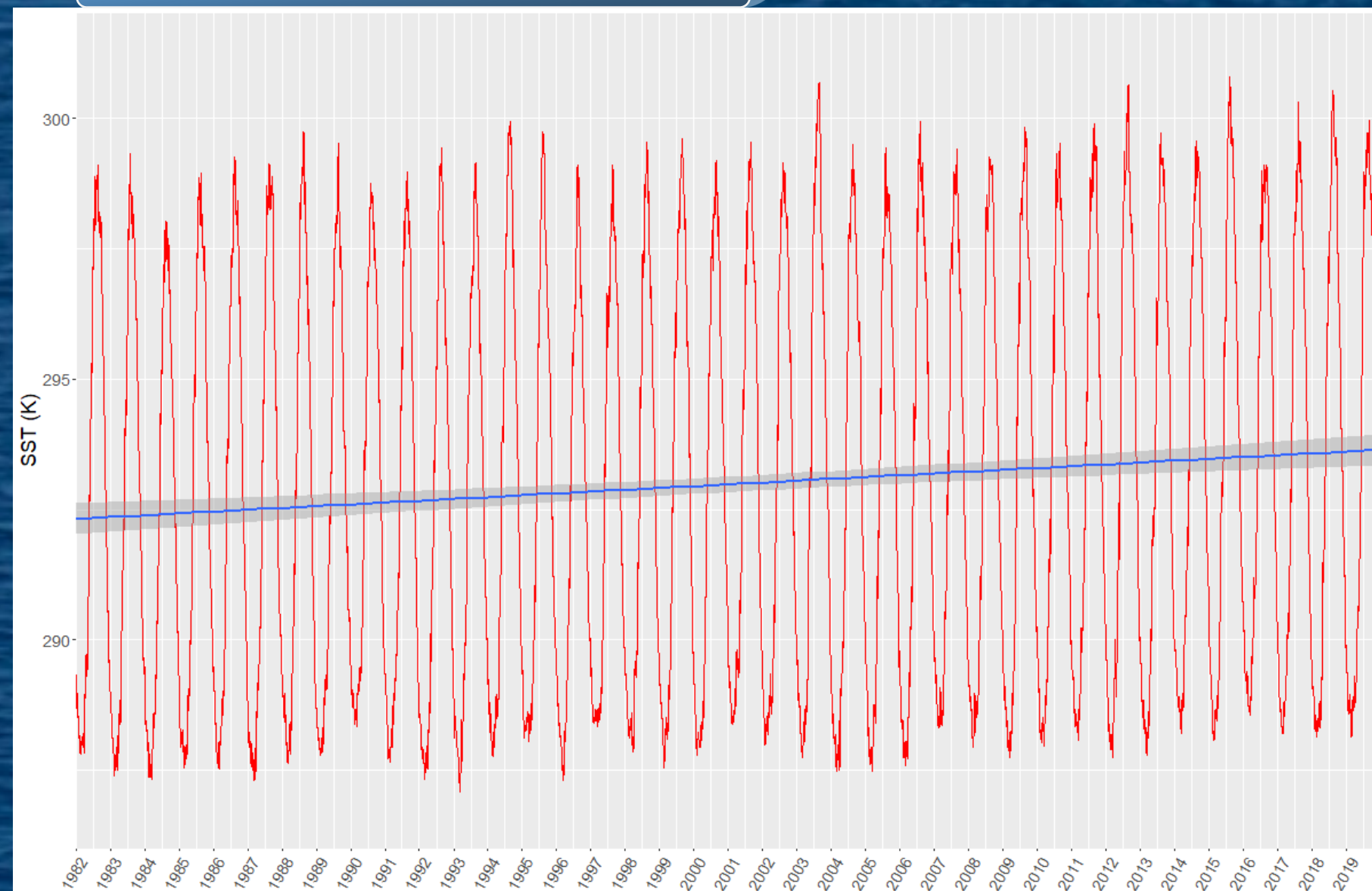


The Mediterranean, almost 40 years of continued warming

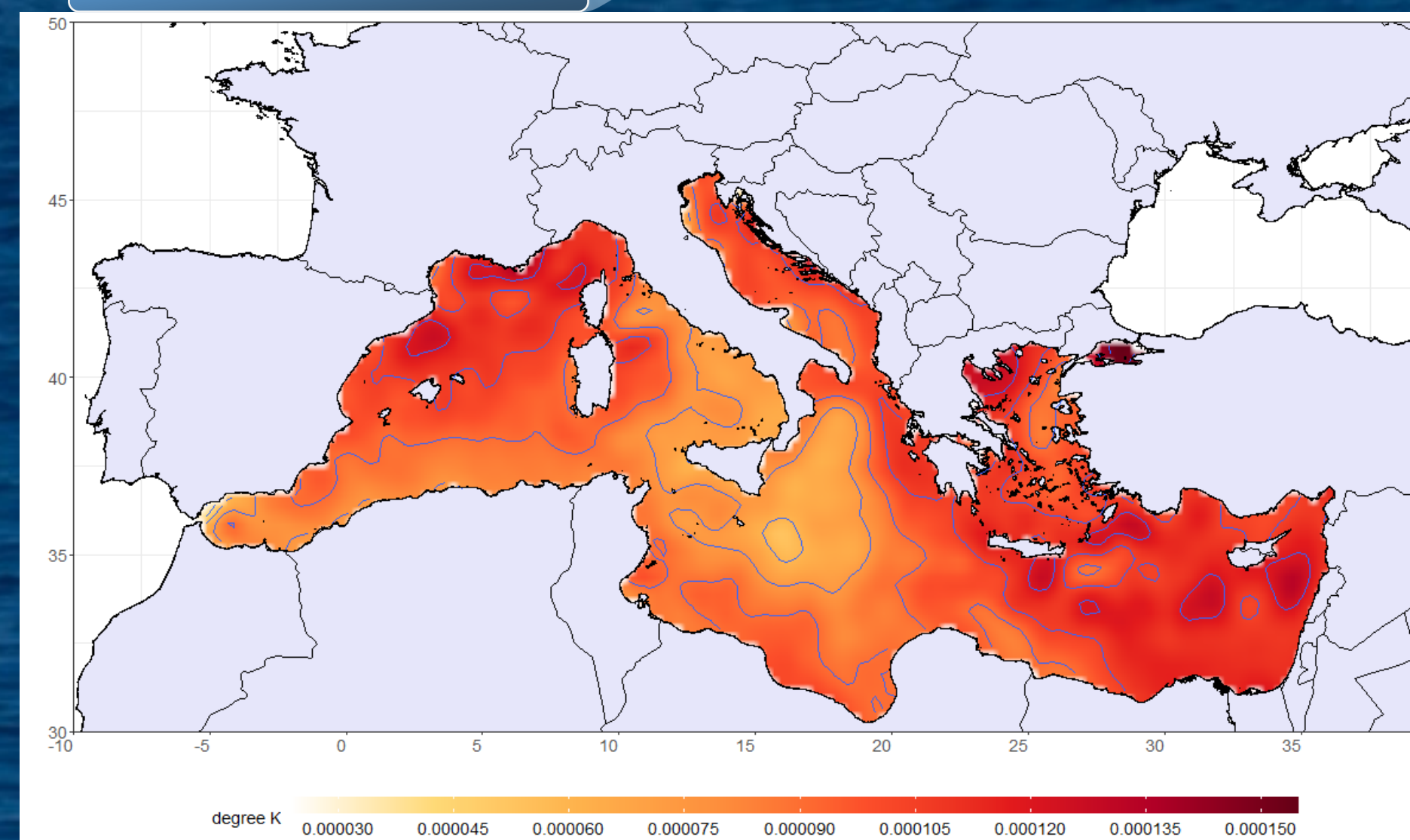
GLOBAL ANALYSIS

Mean Mediterranean SST time series



Mean Mediterranean SST presents a warming trend since the 80s of the XX century to the present time but with a strong seasonal component that can mask actual trend

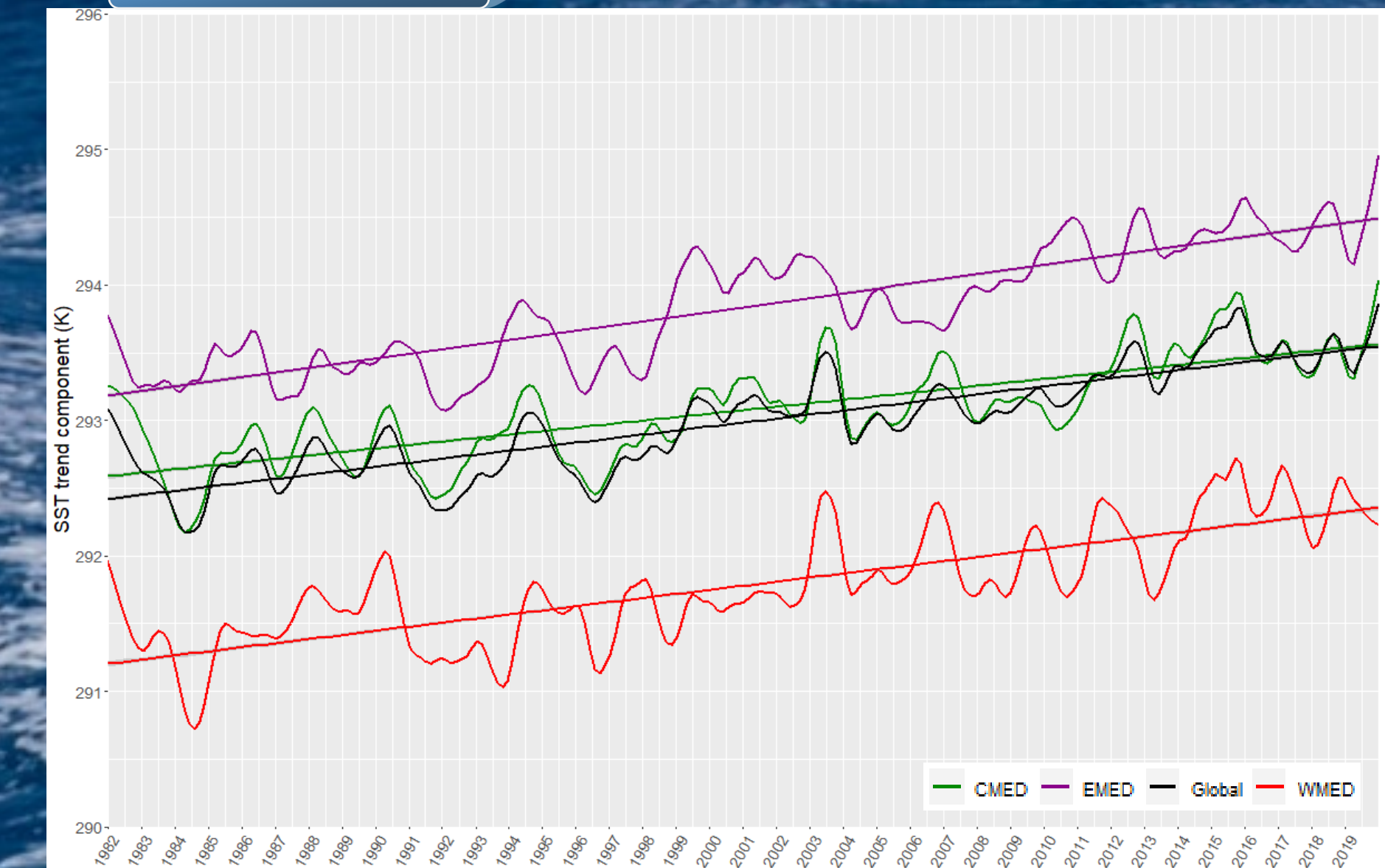
SST daily trend 1982-2019



Three different zones regarding daily warming trend for SST: Western, Central and Eastern Mediterranean basins.
Highest values in the Eastern basin and the northern half of the Western basin
Lower values in the Central Mediterranean basin

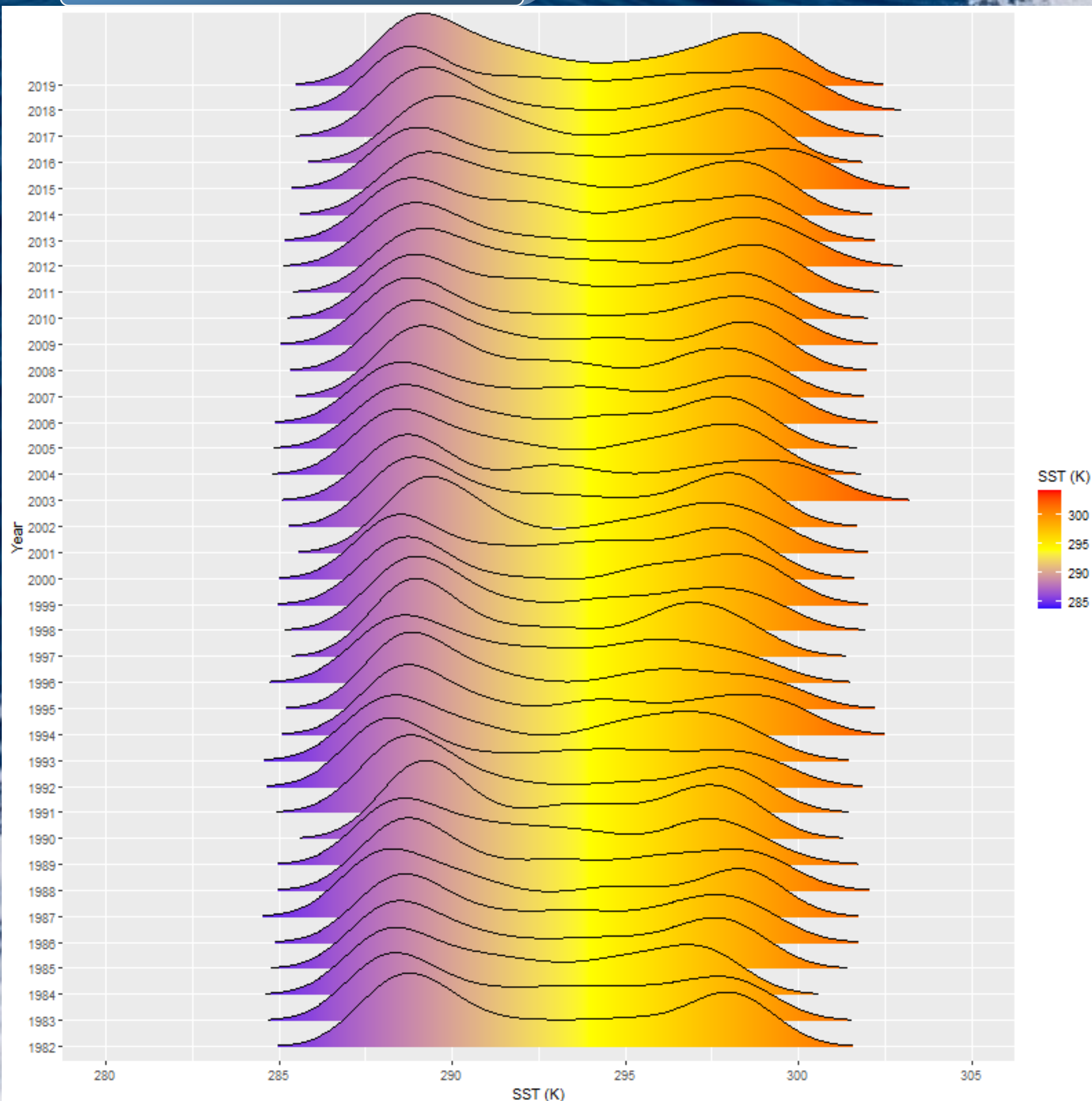
REGIONAL TREND ANALYSIS

SST trend component



Positive trend for the global mean SST with the higher warming rate in the Eastern Mediterranean basin and the lower trend in the Central Mediterranean basin (south of Italy)

Global density plot



Two density peaks for winter and summer SST
Progressive widening of the curve towards the high/maximum values
Higher positive trend in the Eastern Mediterranean basin

CONCLUSIONS

- Mediterranean SST has been consistently warming since the 80's
- Warming presents spatial variability, being higher in the Eastern Med basin
- Warming made up of a higher "most frequent SST" rather than an increment of extreme values
- Positive warming trend in the whole Mediterranean basin
- Highest trend in most of the Eastern basin and northern half of the Western basin, lowest but still positive trend in the Central Mediterranean

Data source

GHRSSST Level 4 AVHRR_OI Global Blended Sea Surface Temperature Analysis (GDS version 2) from NCEI obtained from PODAAC (https://podaac.jpl.nasa.gov/dataset/AVHRR_OI-NCEI-L4-GLOB-v2.0)



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SST trend quantiles time series



Positive trend for all quantiles for global Mediterranean
Accelerated warming for 75 and upper quantiles than in lower quantiles
Highest quantile trend for 75 quantile in the Western Mediterranean