

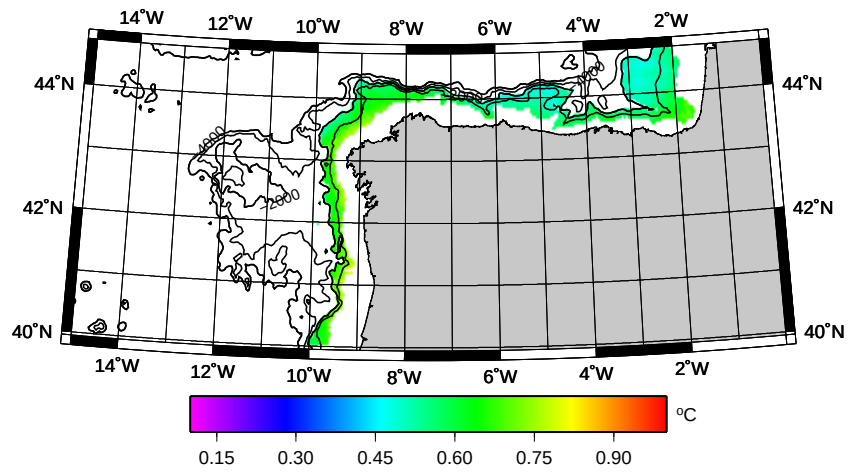


Figure 1: Same as Figure 6 in the manuscript, but after removal of the over-shelf SST pixels.

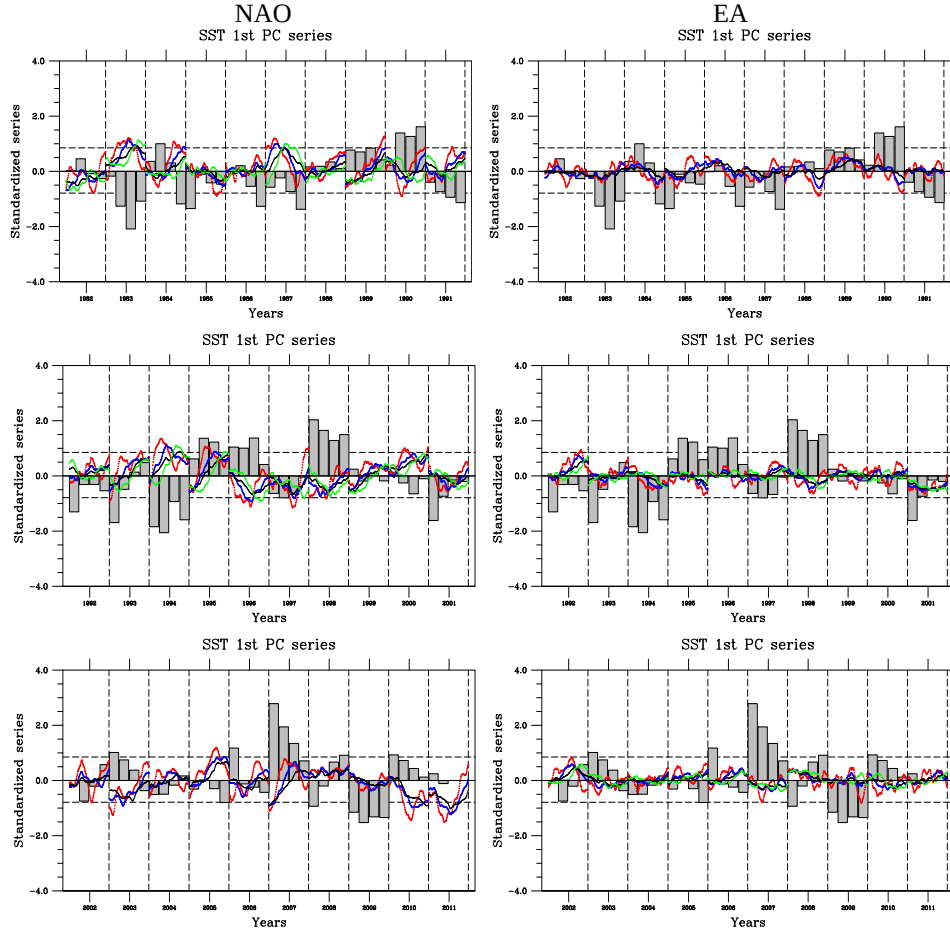


Figure 2: Monthly time series of the IPC-Navidad time series and the accumulated (in time) one month (red), two months (blue) and three months (black) time series of the NAO (left) and EA (right). For a given day, accumulated series indicate the mean of the index for the previous month, two months or three months.

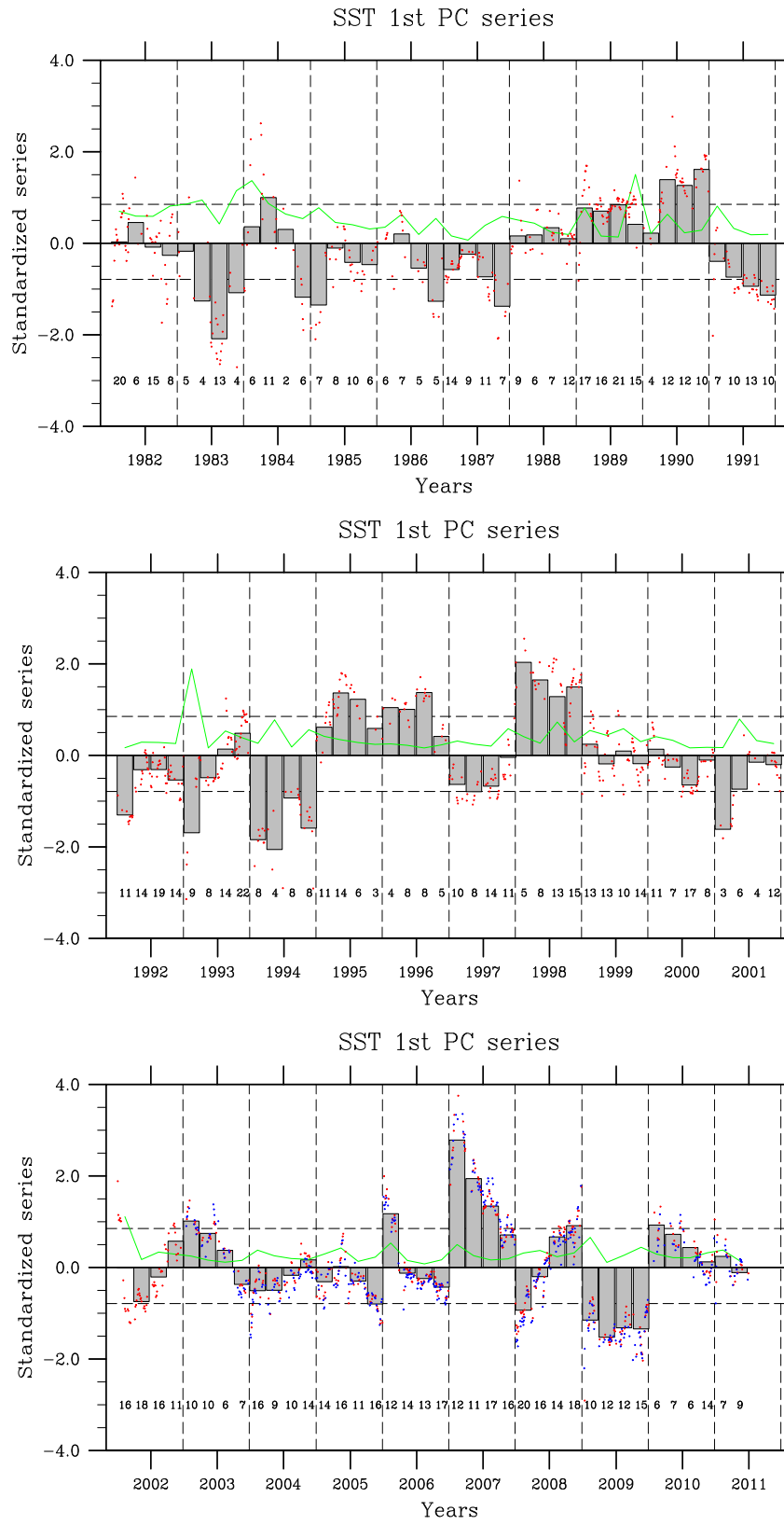


Figure 3: Same as Figure 7 in the paper⁴⁶ but with the monthly standard deviations (green) and the number of days in each month (numbers) added.

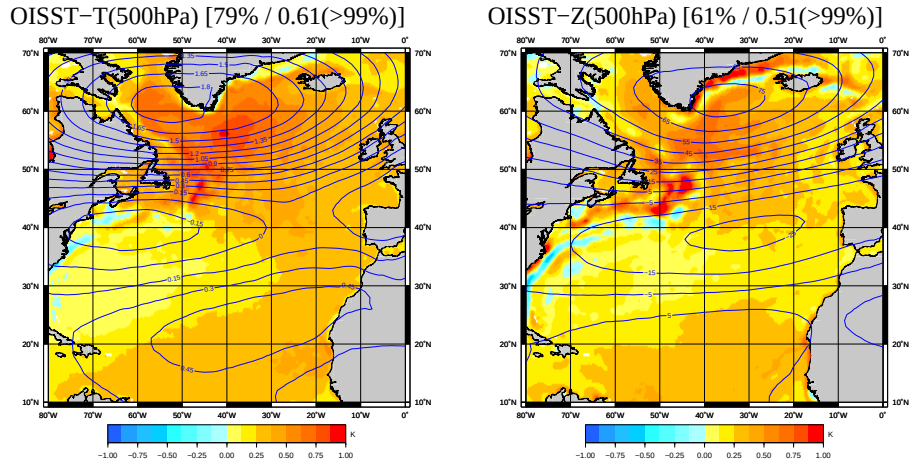


Figure 4: Leading mode of two zero-lagged Maximum Covariance Analyses between the monthly anomalies of the Reynolds OI SST product (color scale, left and right) and the 500 hPa level anomalies of the temperature (left, units are K) and the geopotential height (right, units are meter) from ERAInterim. The percentage of the total covariance accounted by the modes is given above, together with the correlation between the corresponding two expansion time series and their confidence level. The observed SST structure is known as the NAO SST tripole.

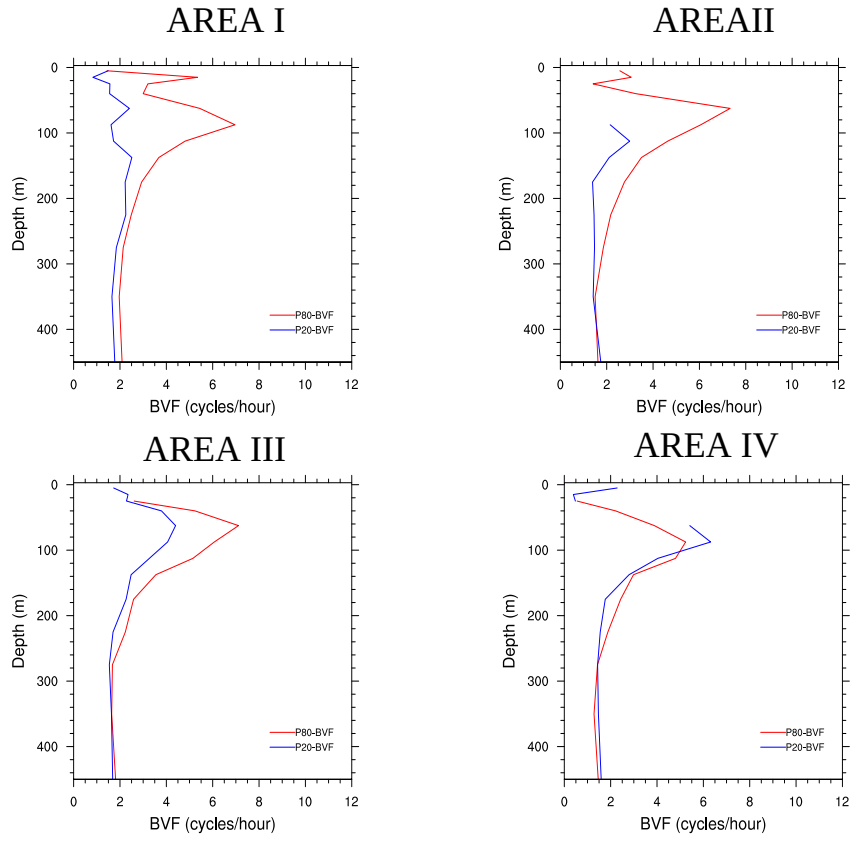


Figure 5: Brunt Vaisala frequencies (P80 red, P20 blue) deduced from the composite vertical profiles shown in Figure 8 of the manuscript.