The study addresses

Science Questions Addressed

Which regions in the Mediterranean Sea relate to frequent high-wind (>8 Beaufort) events?

What is their seasonal distribution?

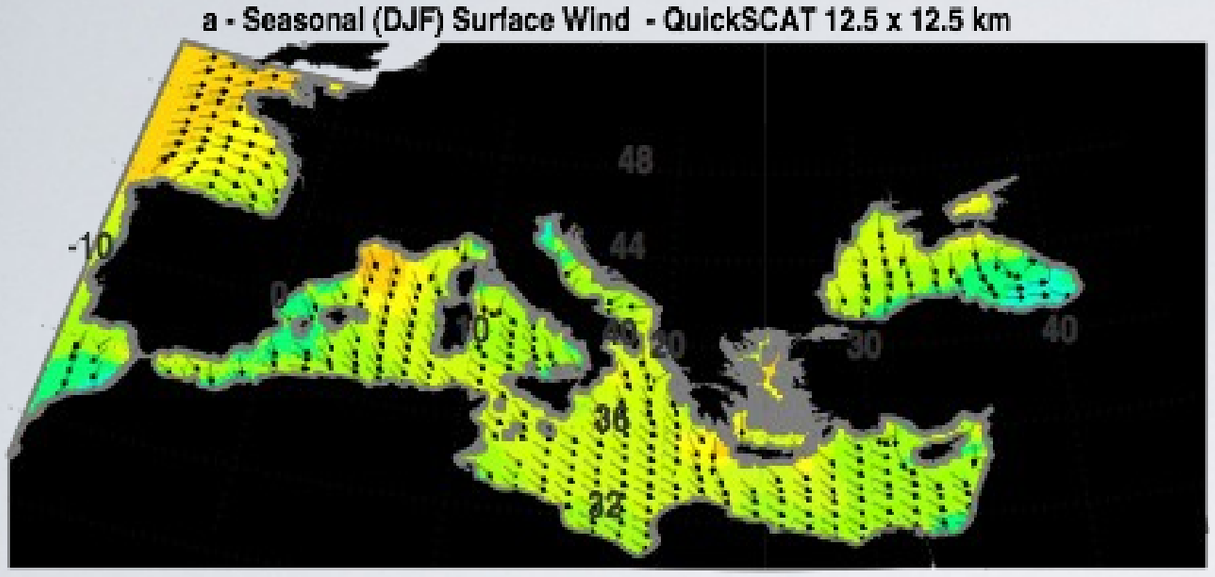
What is the directional signature of these high-wind events?

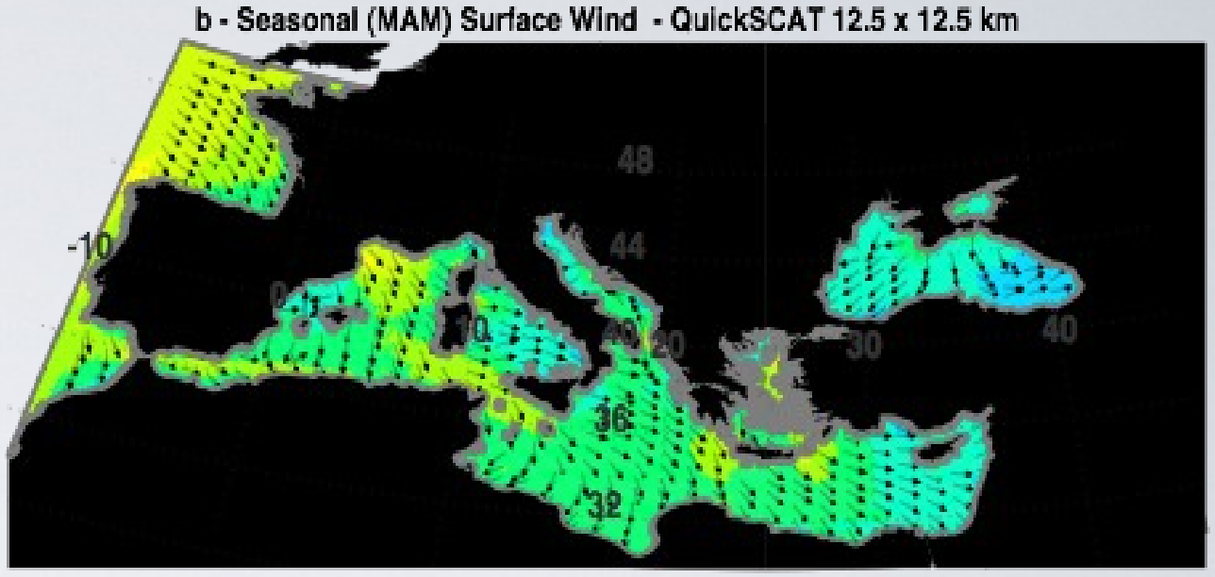
Does the “climatology” dictate the dominant direction of the extreme winds?

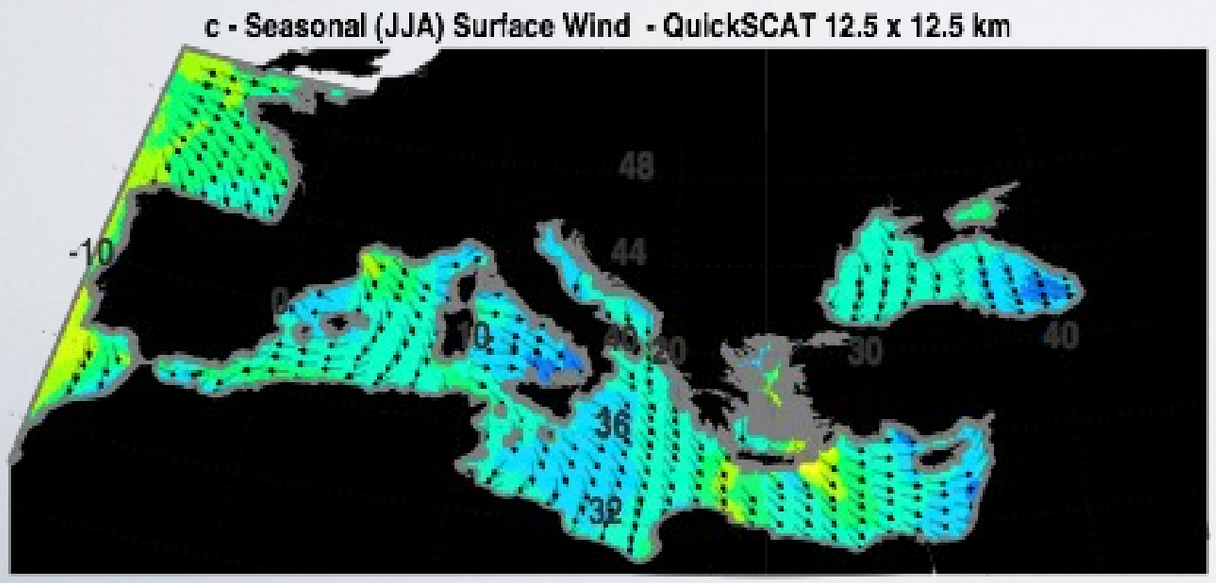
How “dependent” is extreme event occurrence on the mean wind speed?

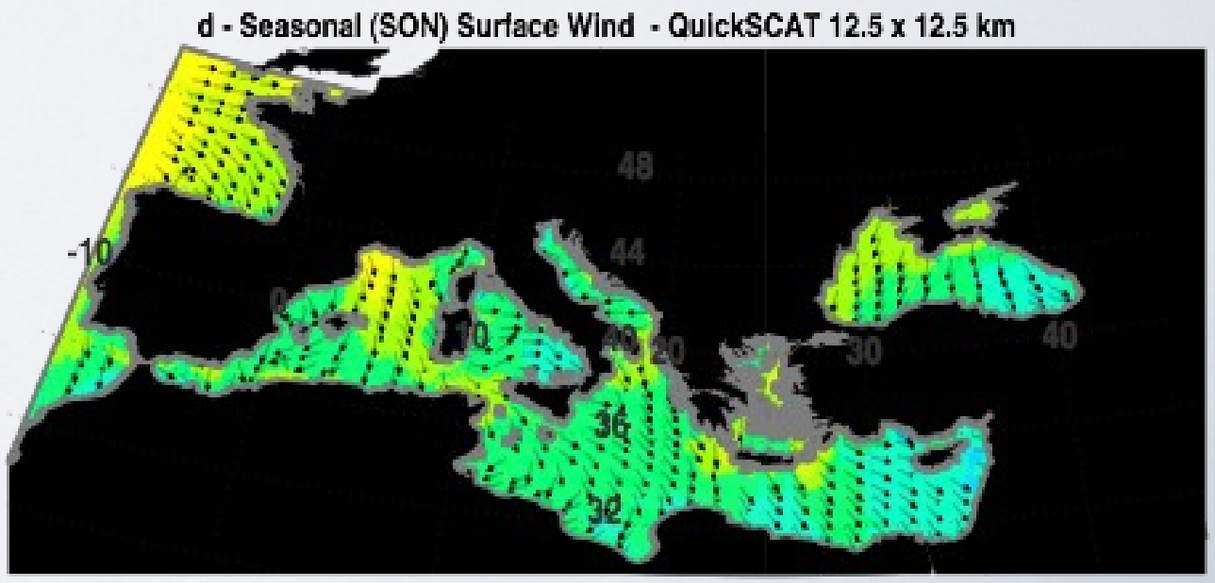
What is the role of North Atlantic Oscillation in surface wind distribution over the Mediterranean?

QuickSCAT: Mean Wind climatology over the Mediterranean (1999-2009)

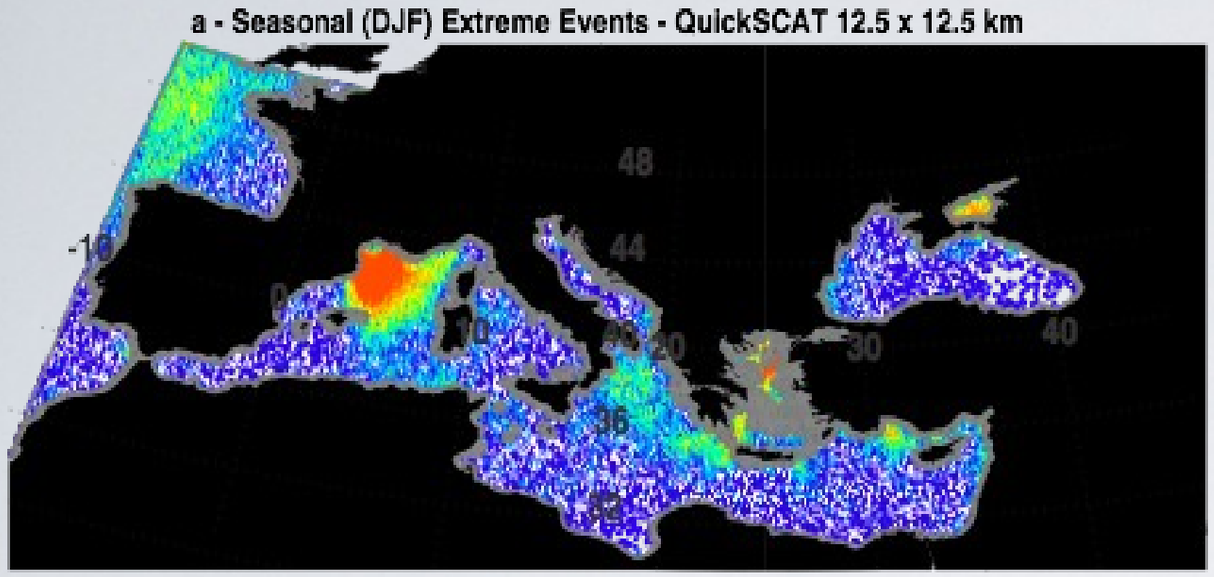


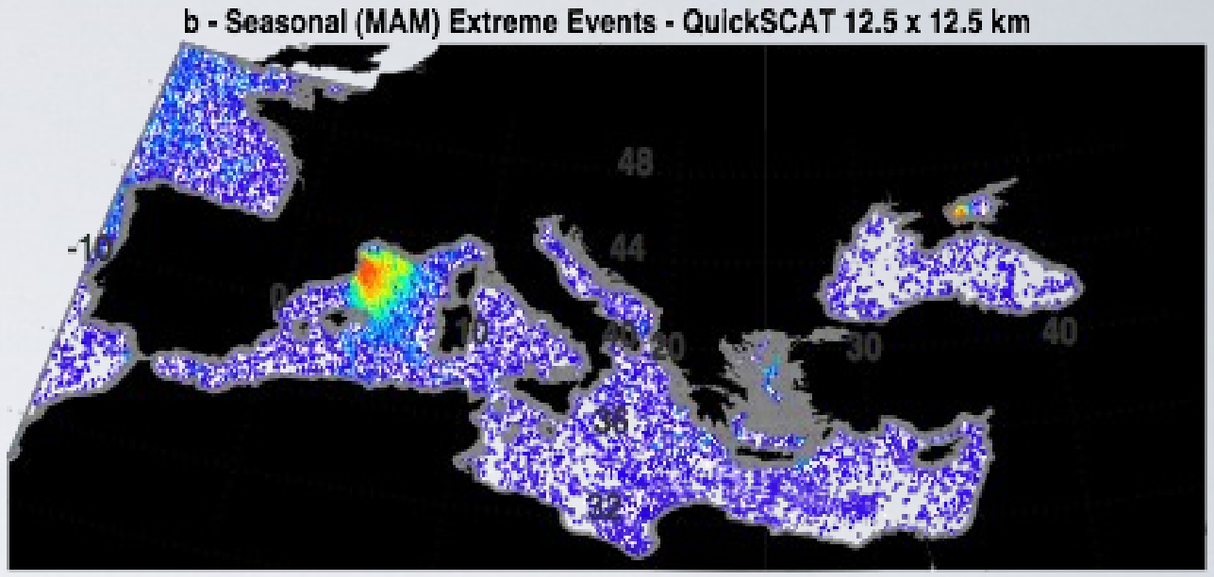


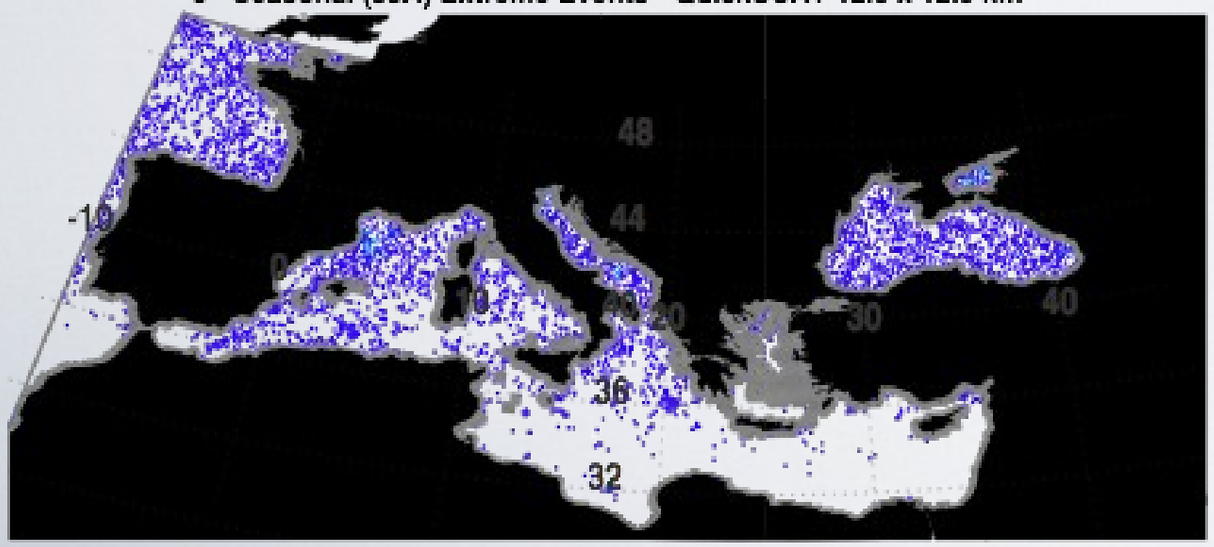


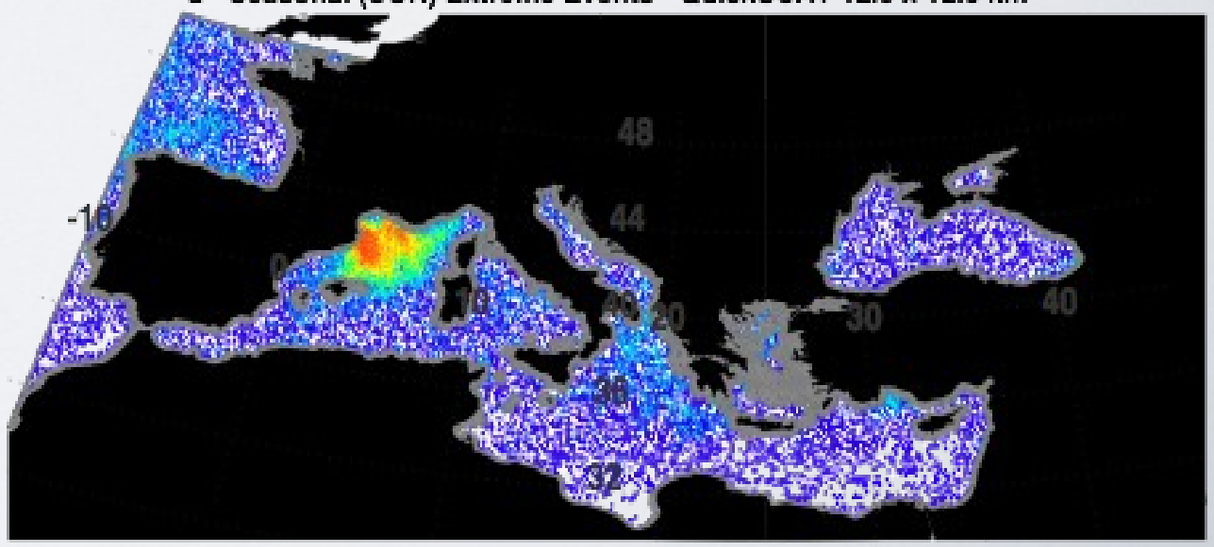


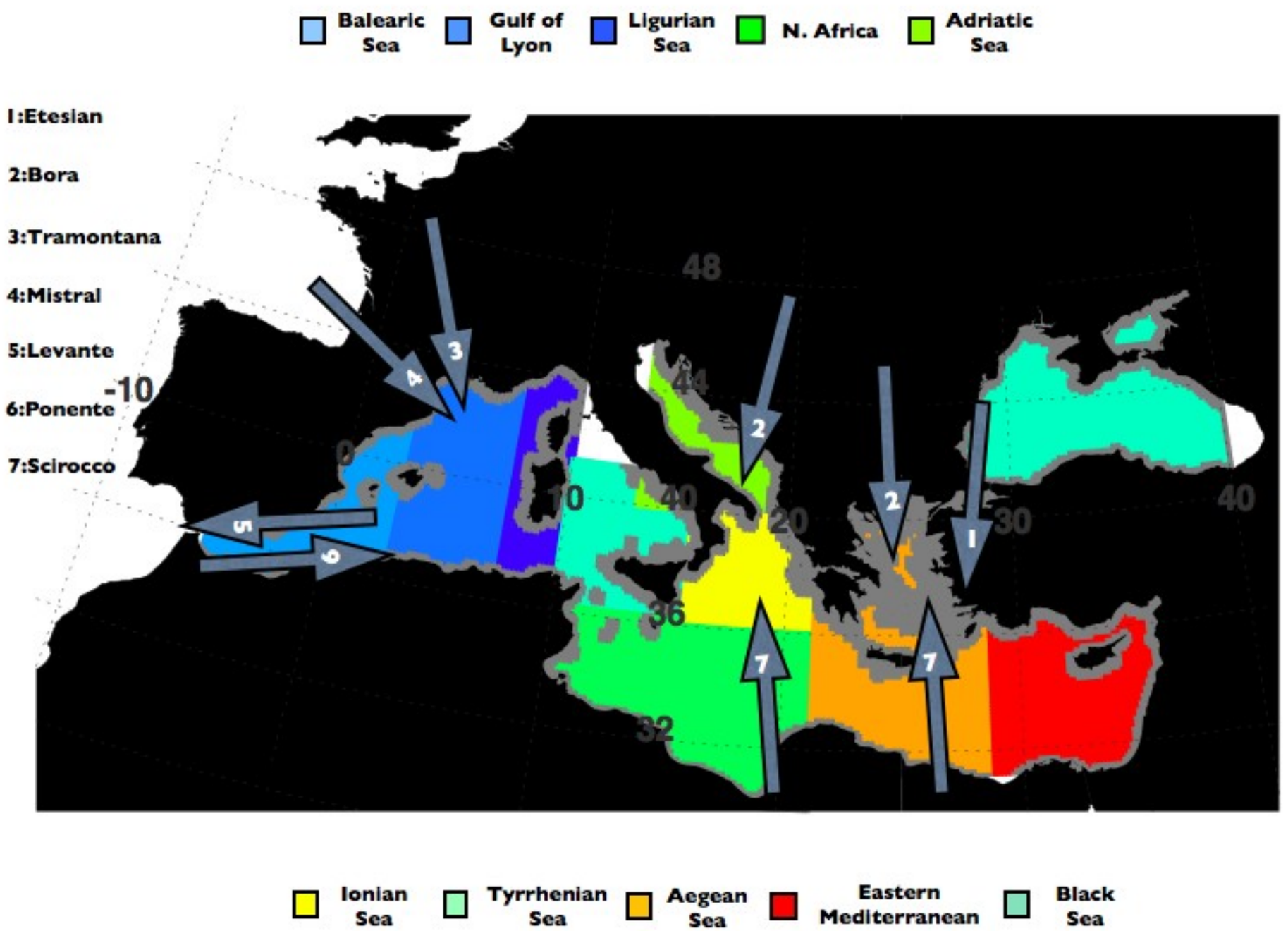
QuickSCAT: Frequency of Extreme Winds over the Mediterranean 1999-2009



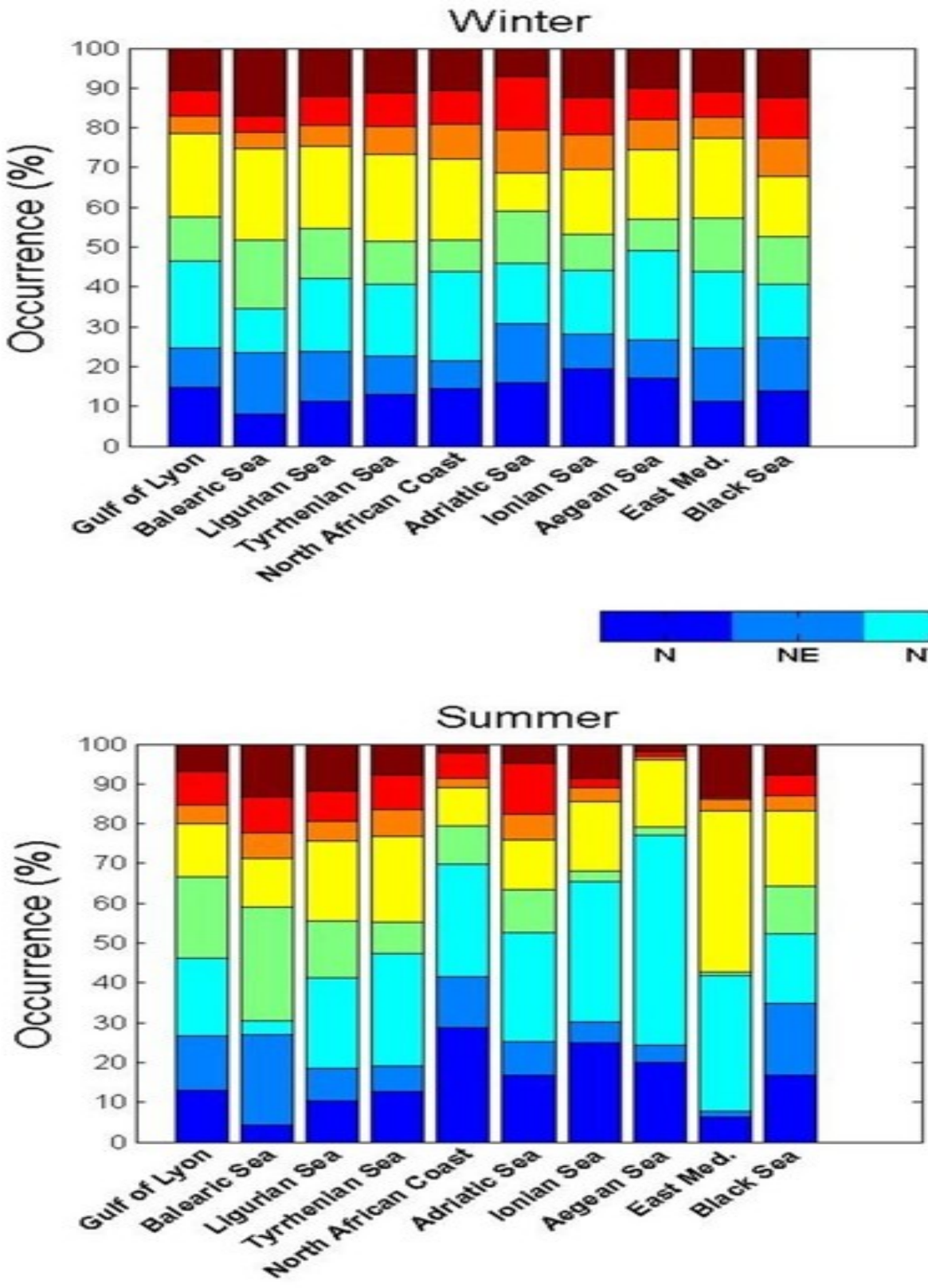


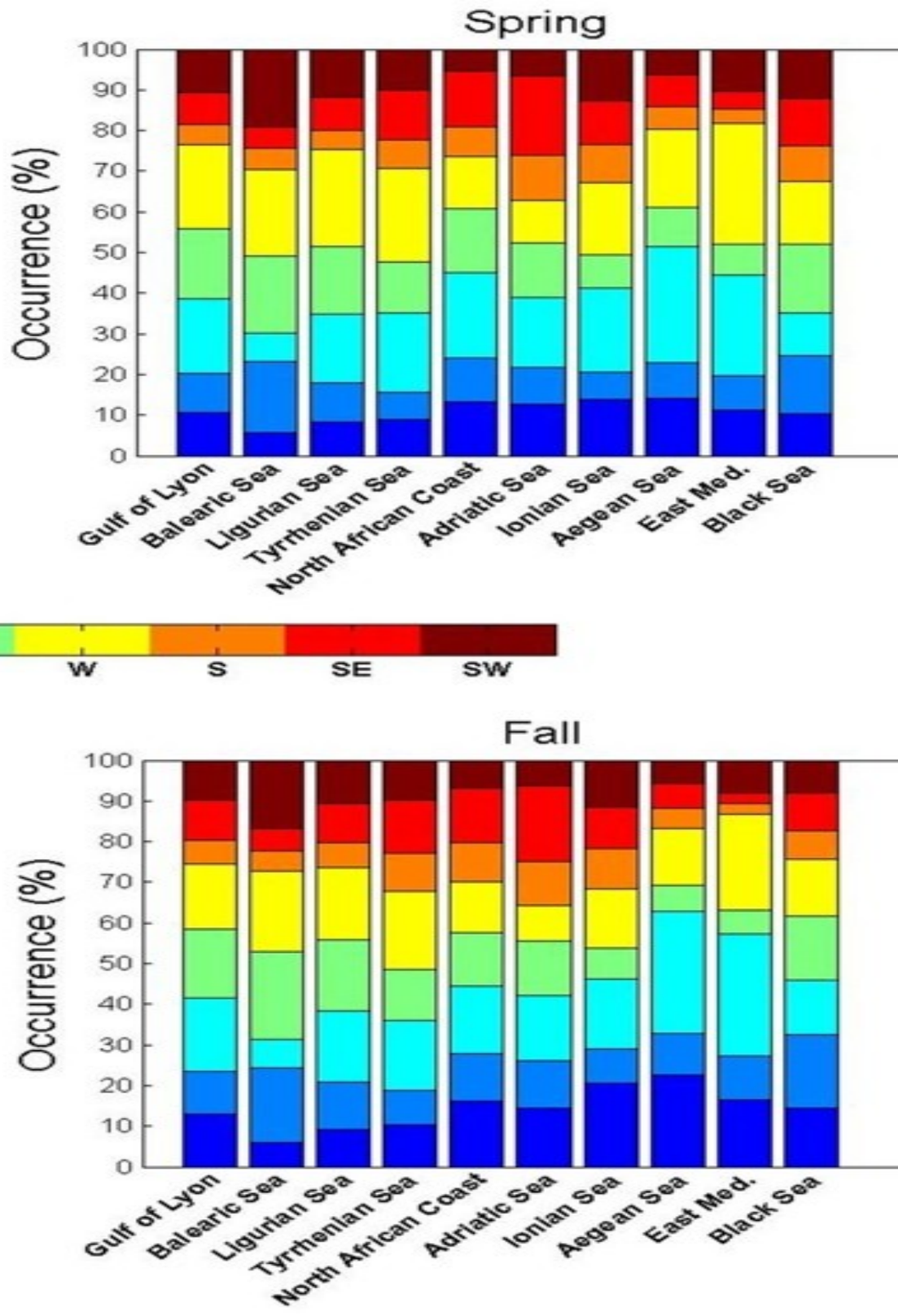




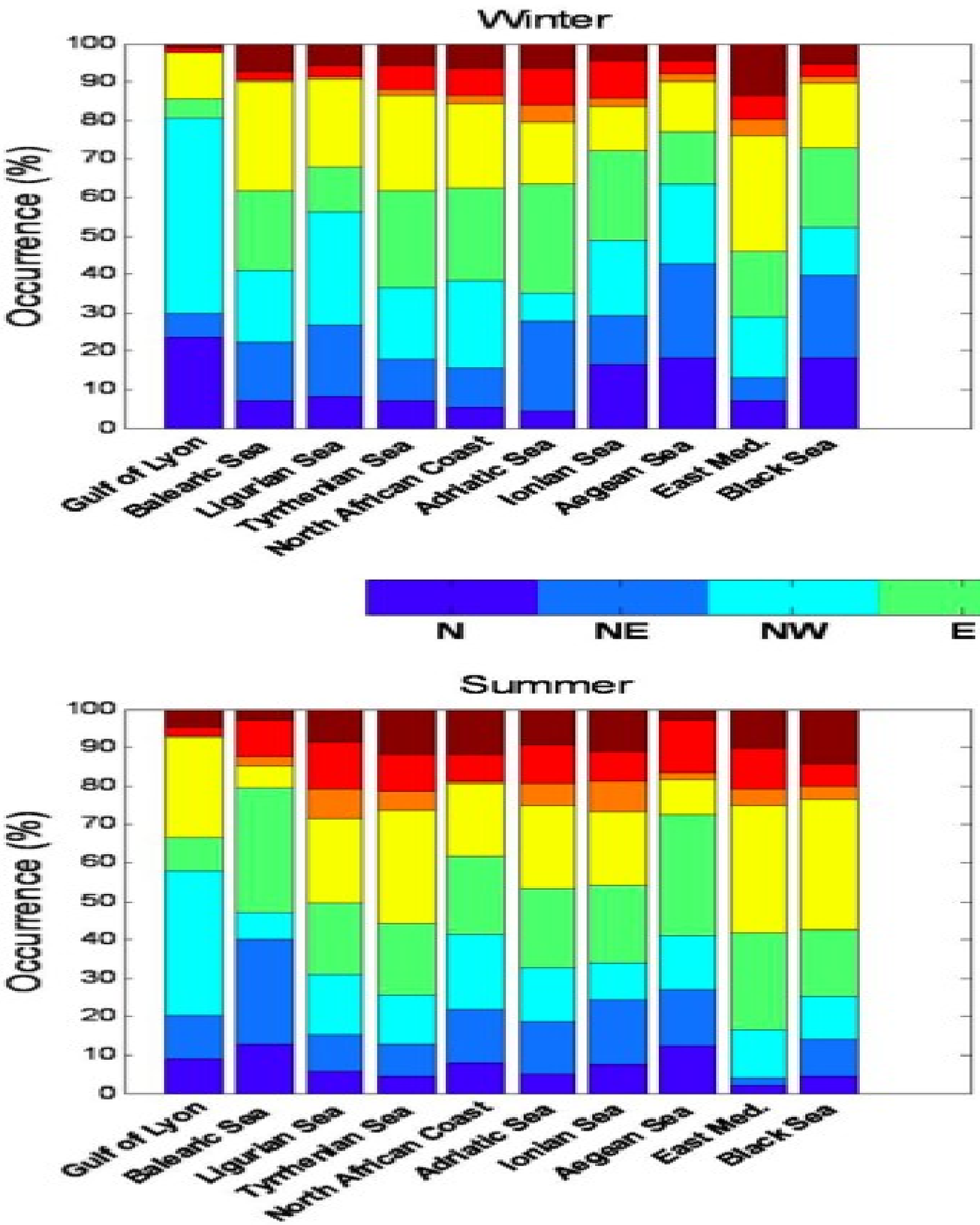

Balearic Sea
Gulf of Lyon
Ligurian Sea
N. Africa
Adriatic Sea
1:Etesian
2:Bora
3:Tramontana
4:Mistral
5:Levante
6:Ponente
7:Scirocco
-10
48
44
0
10
40
20
2
2
1
30
40
36
32
7
7
4
3
5
6
Ionian Sea
Tyrrhenian Sea
Aegean Sea
Eastern Mediterranean
Black Sea

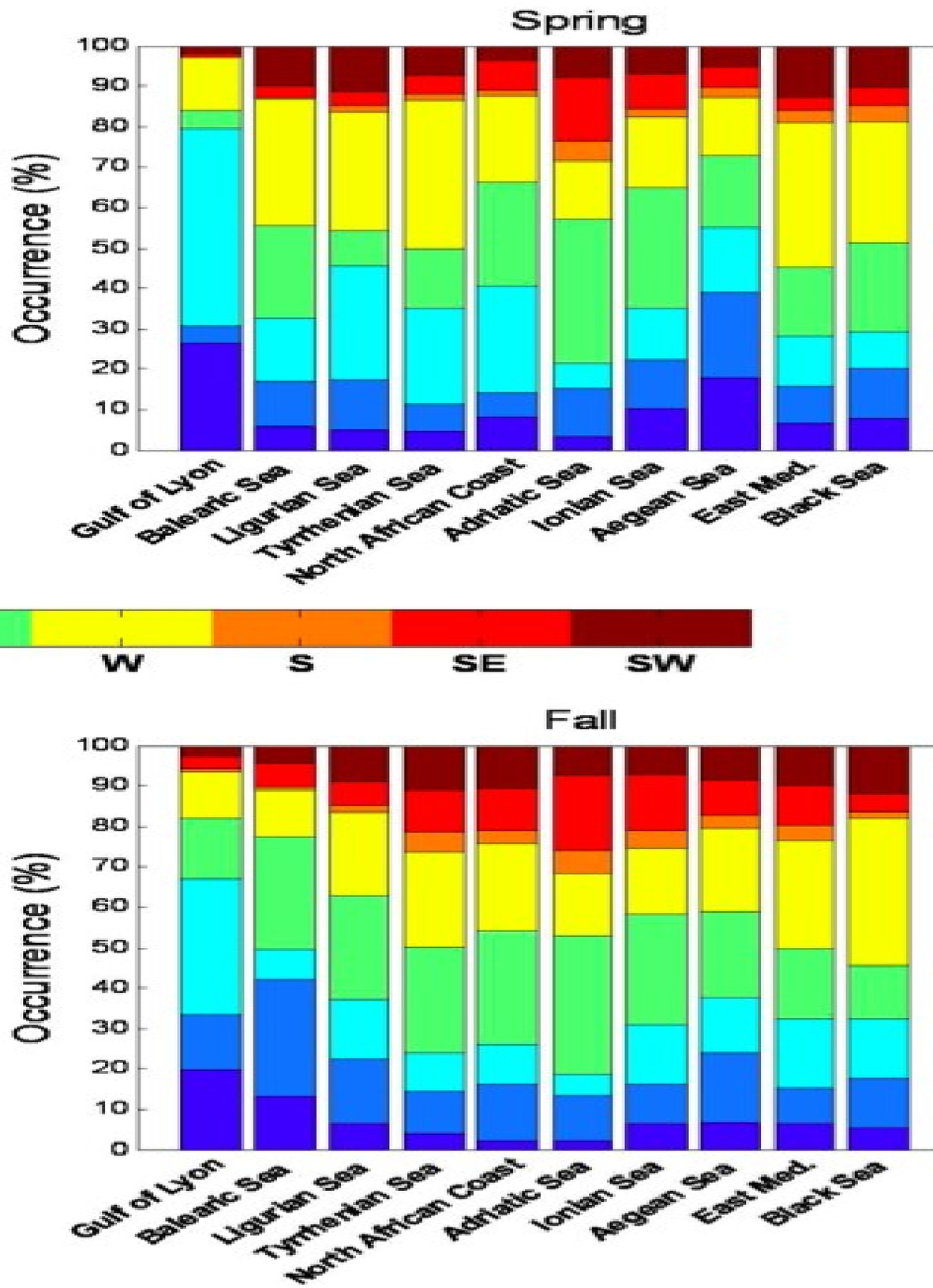
QuickSCAT: Direction of Mean Winds over the Mediterranean 1999-2009



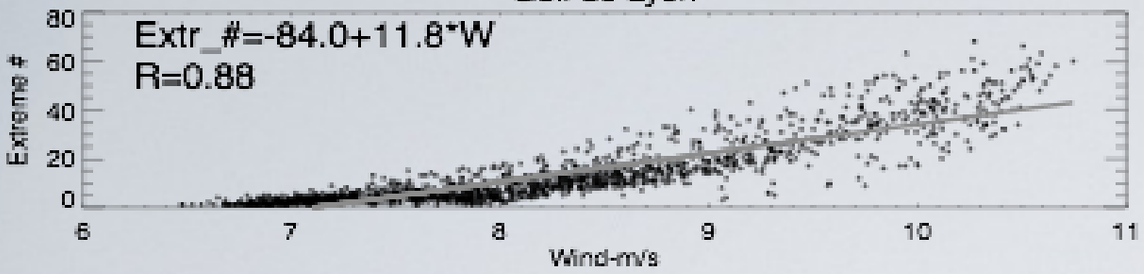


QuickSCAT: Direction of Extreme Winds over the Mediterranean 1999-2009

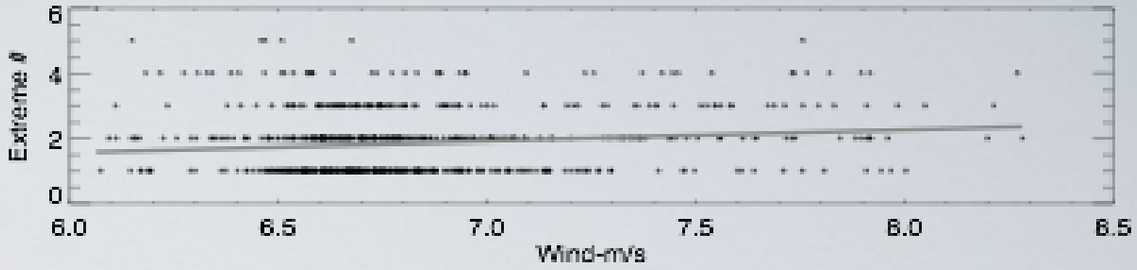




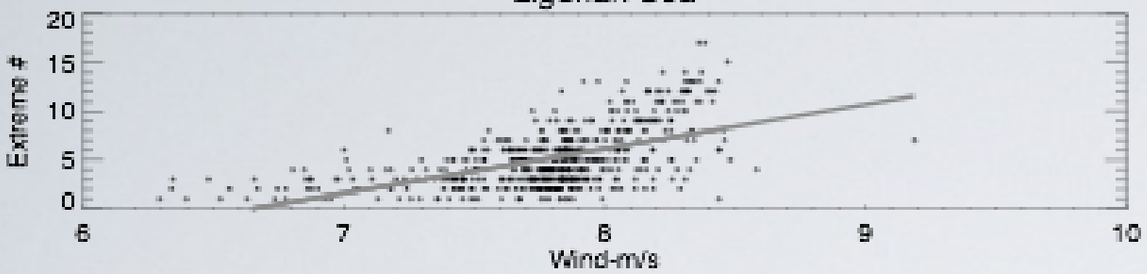
Gulf de Lyon



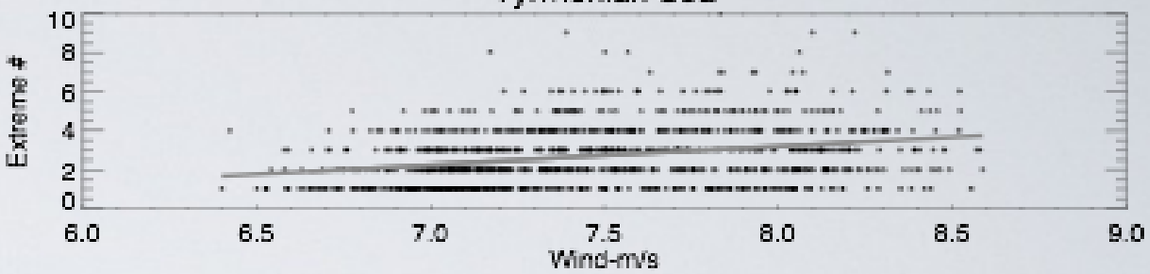
Balearic Sea



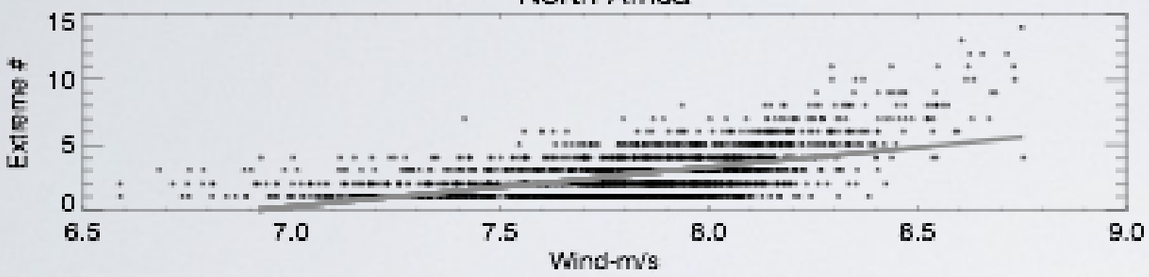
Ligurian Sea



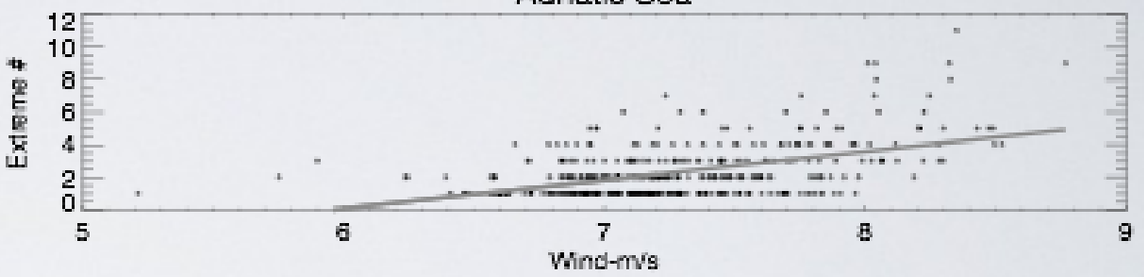
Tyrrhenian Sea



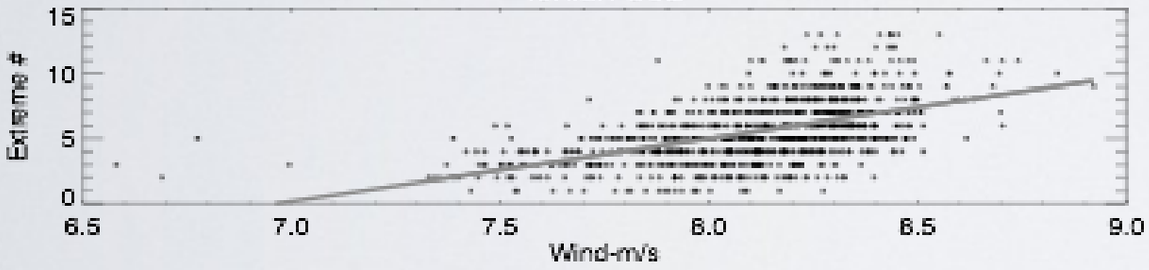
North Africa



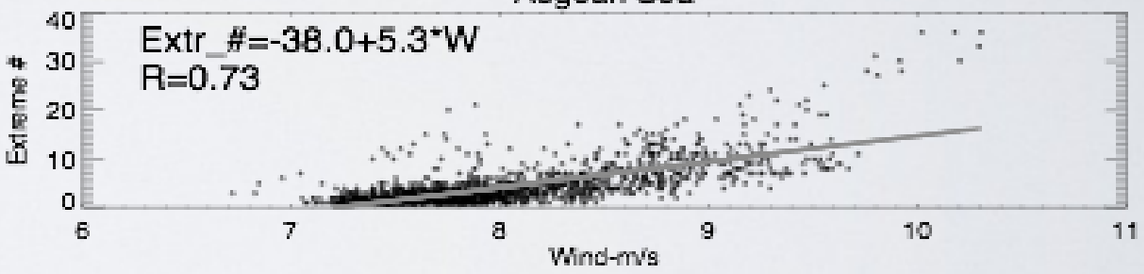
Adriatic Sea



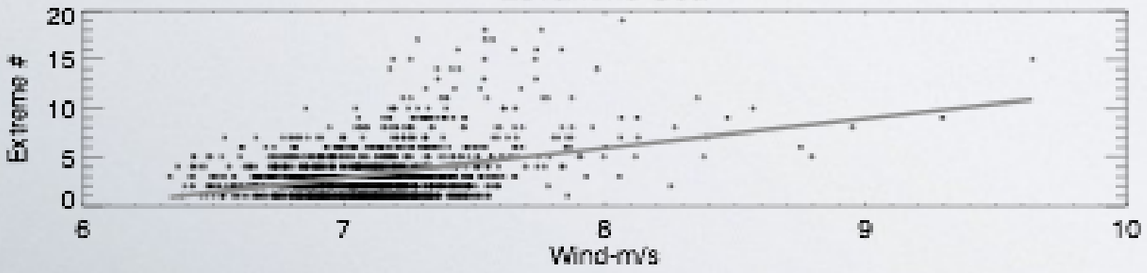
Ionian Sea



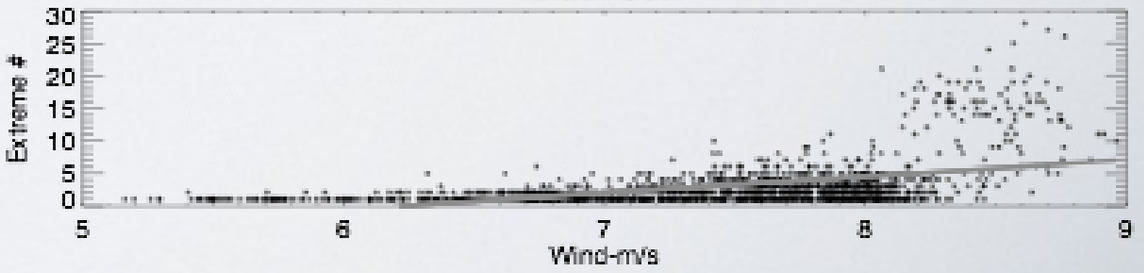
Aegean Sea



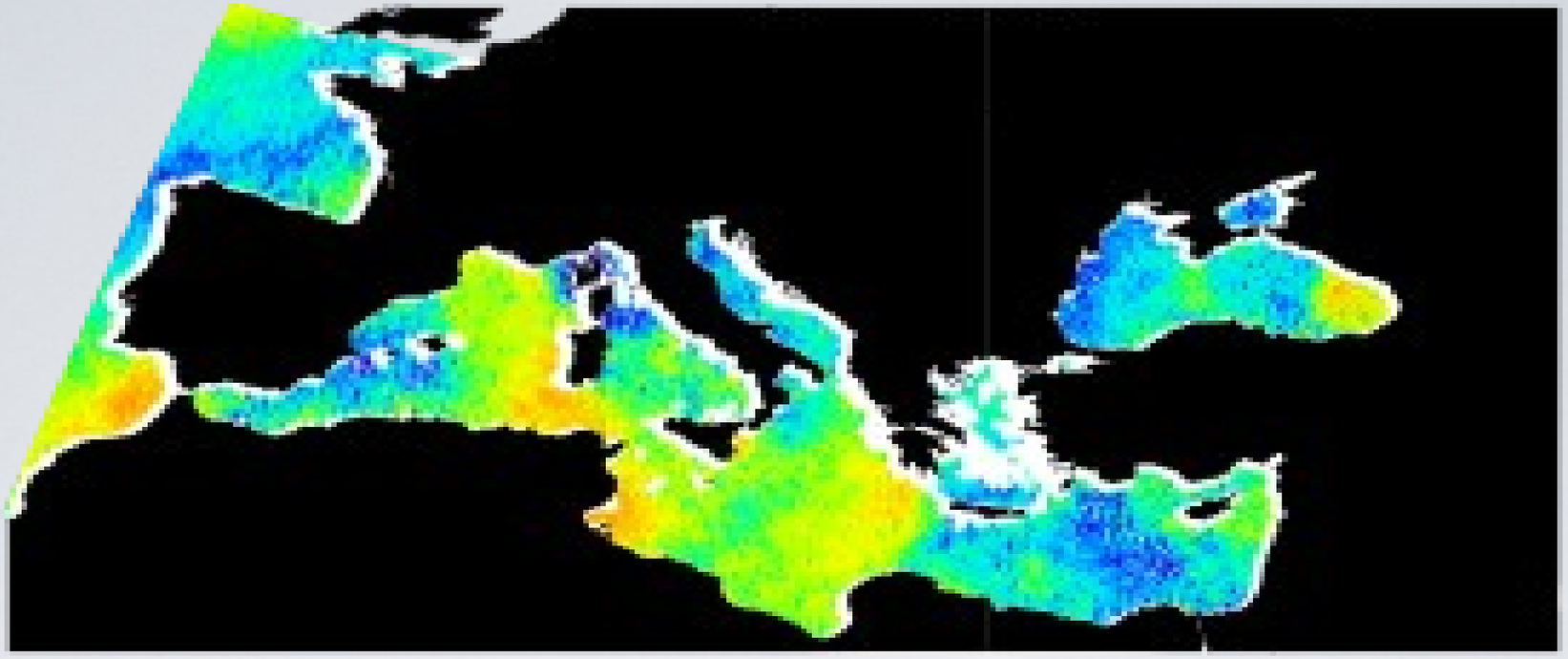
Levantine Sea



Black Sea



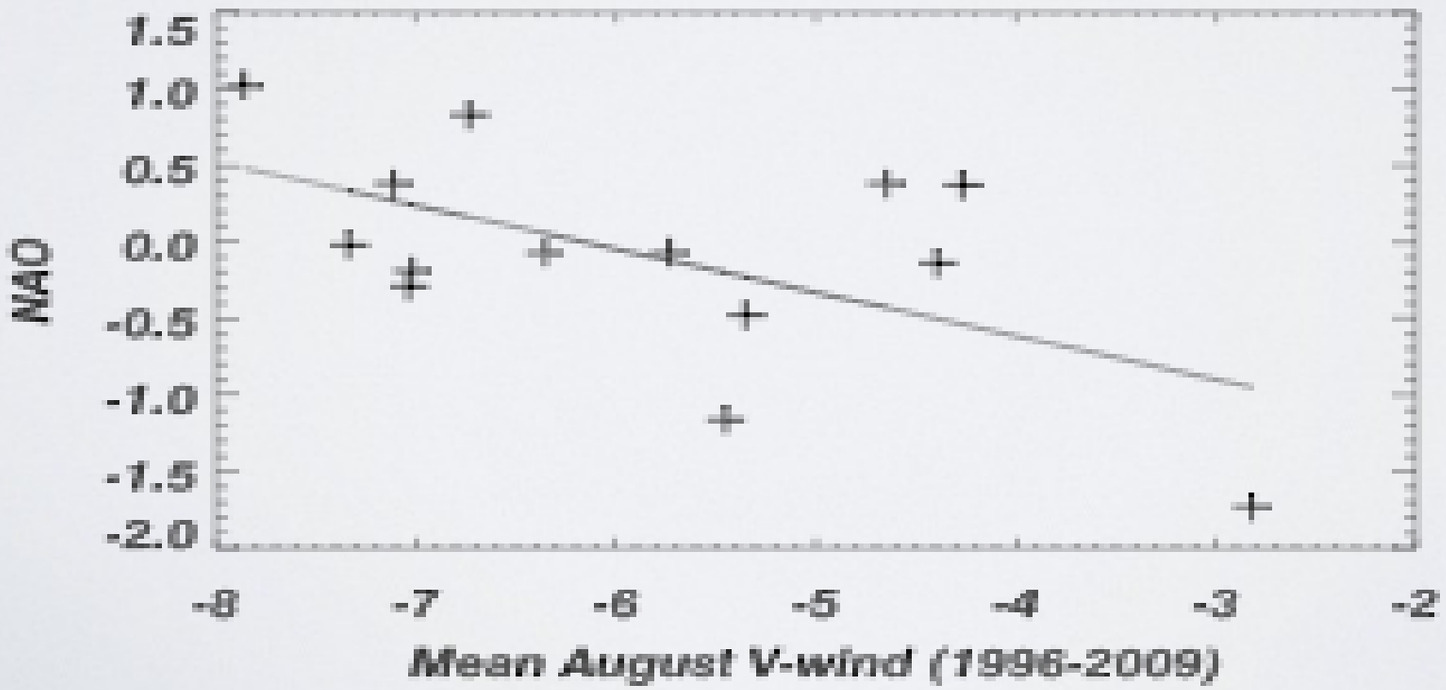
a. *QuickSCAT CP12 vs. NAO (June-July-August 2000-2009)*



Correlation

-0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7

b. *HNMS-HCMR surface observations*



Thanks for your attention