Extreme Weather Index

Site-specific thresholds for extremes

*Extreme precipitation and wind can lead to severe damage, both to people and to expensive infrastructure. At StormGeo we use a vast number of weather forecast model simulations to compute the likelihood of extreme weather at any location of the globe.*

What is extreme?

In Bergen, Norway, it takes a lot of rain to make a downpour an extreme event. In drier regions, such as parts of Southern Europe, the same amount of rain would perhaps have devastating effects. There are of course also seasonal variations. This is why one has to calibrate any extreme weather index with respect to the location and the time of the year. To do this, 30-year climatologies are used define daily, site-specific thresholds for extremes; extreme wind, extreme temperatures and extreme precipitation.

Presentation

The figure below shows one possible visualization of extreme wind speed. The high values (red colours) indicate high probabilities of strong winds over the Mediterranean region in mid-April 2012. But as we have the source data on a geographical grid, there are endless ways to customize the presentation of the extreme weather index. Graphs, maps, charts; anything is possible.