1 DETERMINISTIC SCORES

1.1 Spearman rank correlation

Spearman's correlation is a non-parametric measure of rank correlation (statistical dependence between the rankings of two variables). It assesses how well the relationship between two variables can be described using a monotonic function (whether linear or not).

$$r_s = \frac{cov(R[H], R[O])}{\sigma_{R[H]} \cdot \sigma_{R[O]}}$$

where :

- r_s : spearman rand correlation
- H : the Hindcast.
- O : the Observation.
- R[x] : the rank of the variable x.
- σ_x : standard deviation of the variable x.

1.2 RMSE

$RMSE$ measures the average difference between a the hindcast and the observation.

$$RMSE = \sqrt{\frac{1}{n}\sum_{i=1}^{n}(H_i - O_i)^2}$$