

“Seasonal hindcasts to assess the hazard of meteorological drought over Europe: a multi-model approach”

Supplementary figures

$Me(p_{C3S}) - Me(p_{GPCP})$ MJJ over the period 1993-2016 (mm)

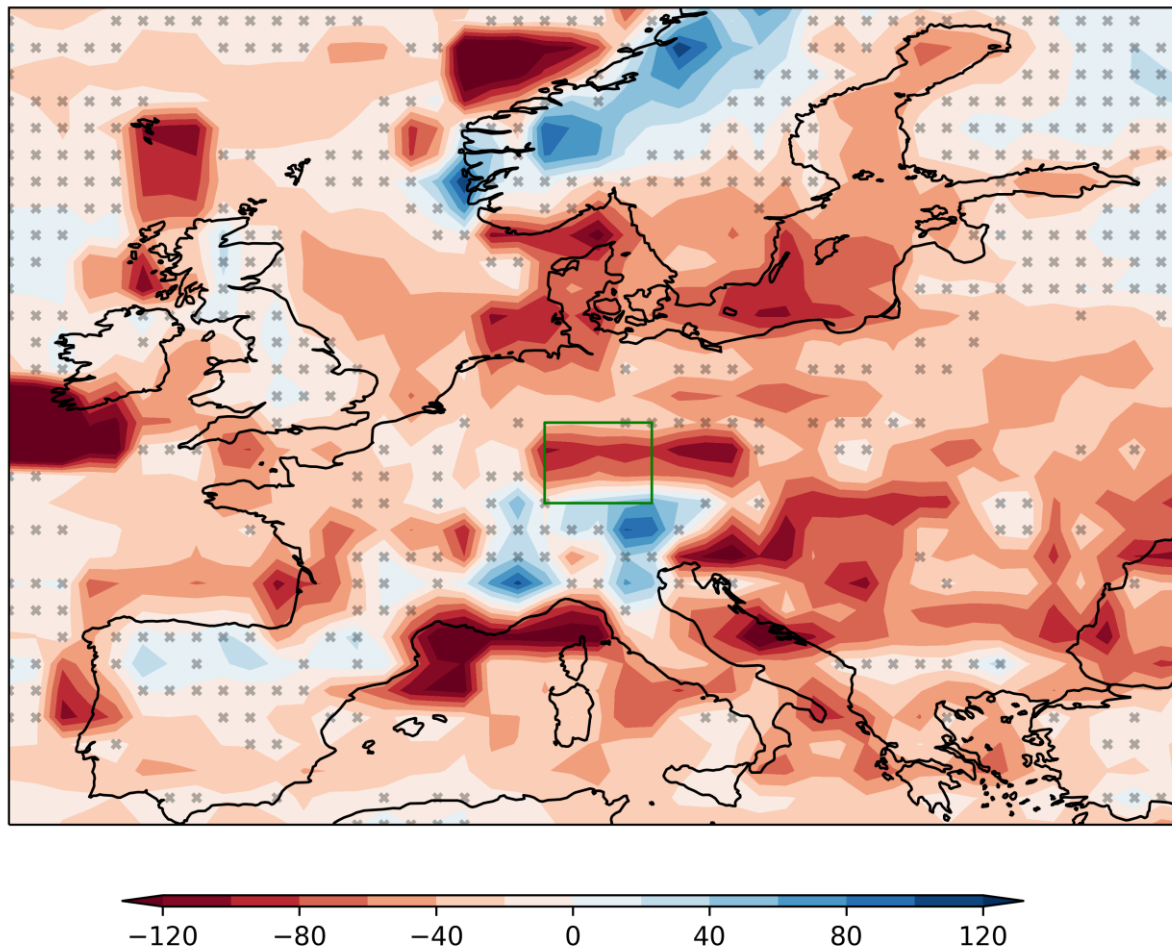


Figure S1. The difference between the precipitation fields of the multi-model median and observed mean over MJJ during the period 1993-2016 over Europe. The green rectangle highlights the study area. Gray crosses indicate gridpoints where the difference is **not** significant at the 5% level ($p\text{-value} \geq 0.05$ based on Student's t-test).

Suitability of the p_{ECMWF} field over the European territory

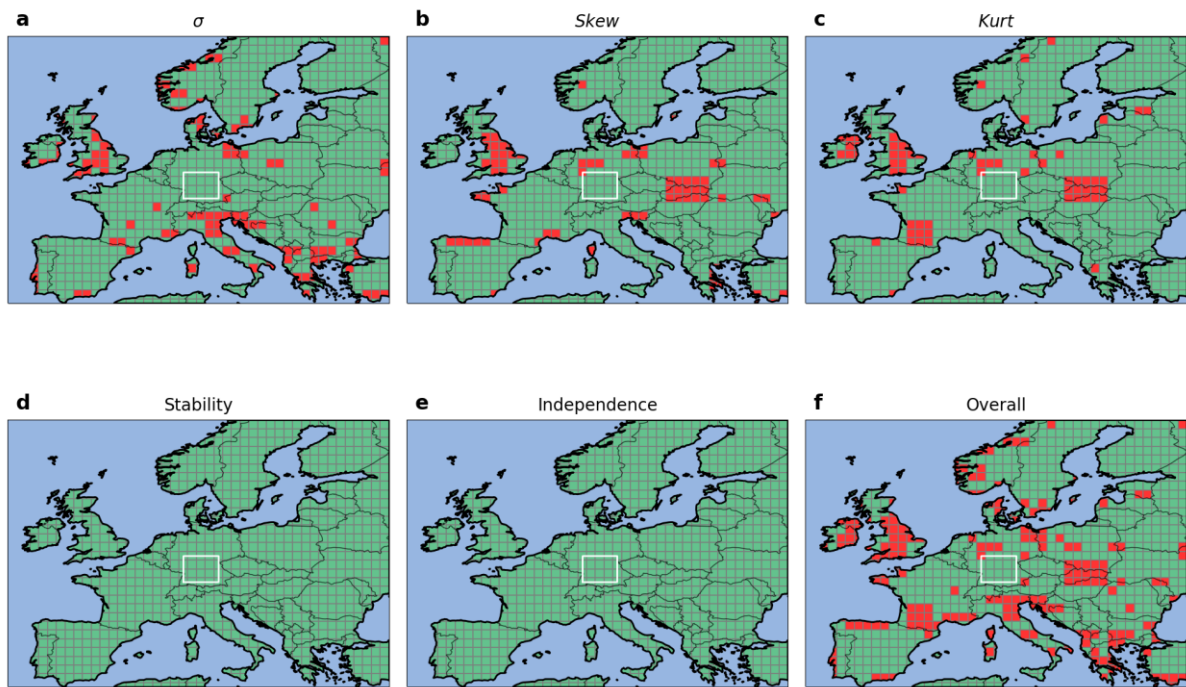


Figure S2. Maps showing grid points across the European domain where ECMWF seasonal hindcasts MJJ precipitation pass (green) or fail (red) the (a, b, c) fidelity, (d) stability and (e) independence tests described in the Validation section. Panel (f) summarizes the overall results, combining the outcomes of all tests.

Suitability of the p_{DWD} field over the European territory

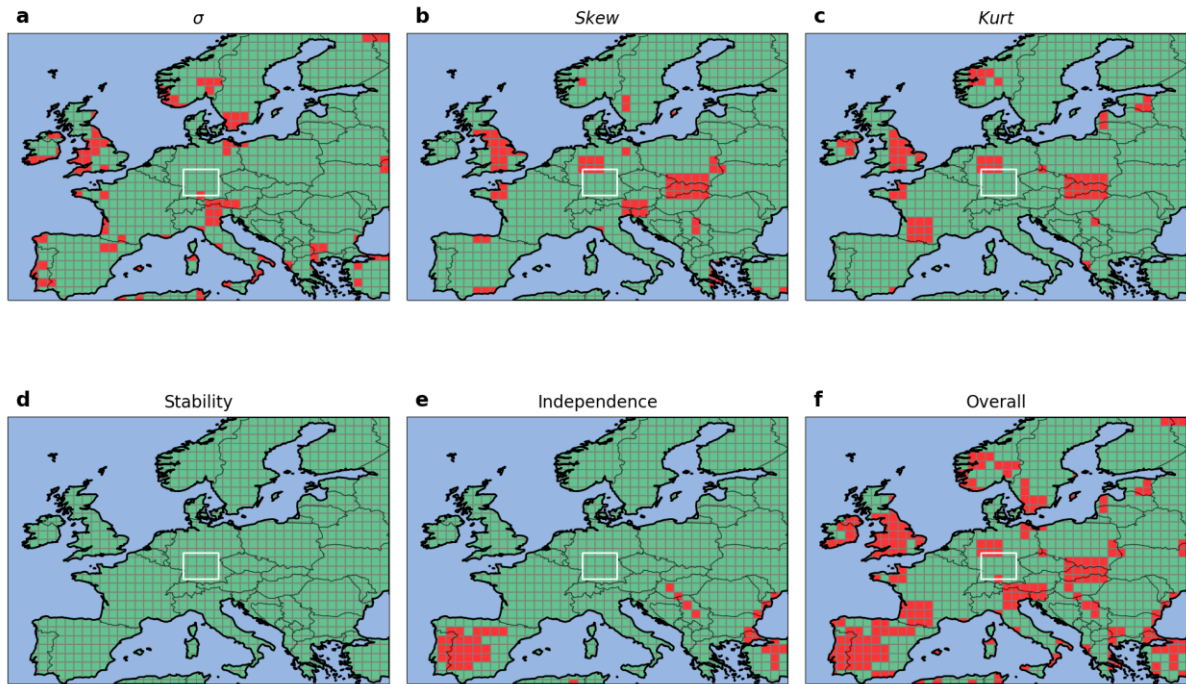


Figure S3. Maps showing grid points across the European domain where DWD seasonal hindcasts MJJ precipitation pass (green) or fail (red) the (a, b, c) fidelity, (d) stability and (e) independence tests described in the Validation section. Panel (f) summarizes the overall results, combining the outcomes of all tests.

Suitability of the p_{UKMO} field over the European territory

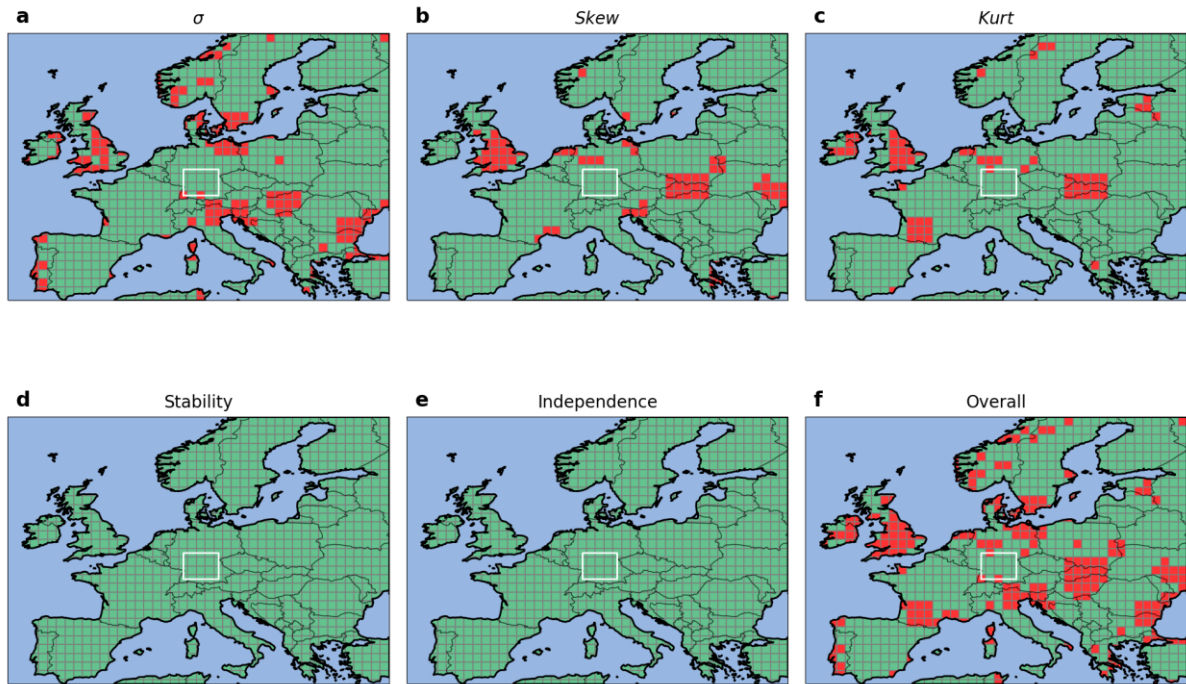


Figure S4. Maps showing grid points across the European domain where UKMO seasonal hindcasts MJJ precipitation pass (green) or fail (red) the (a, b, c) fidelity, (d) stability and (e) independence tests described in the Validation section. Panel (f) summarizes the overall results, combining the outcomes of all tests.

Suitability of the p_{CMCC} field over the European territory

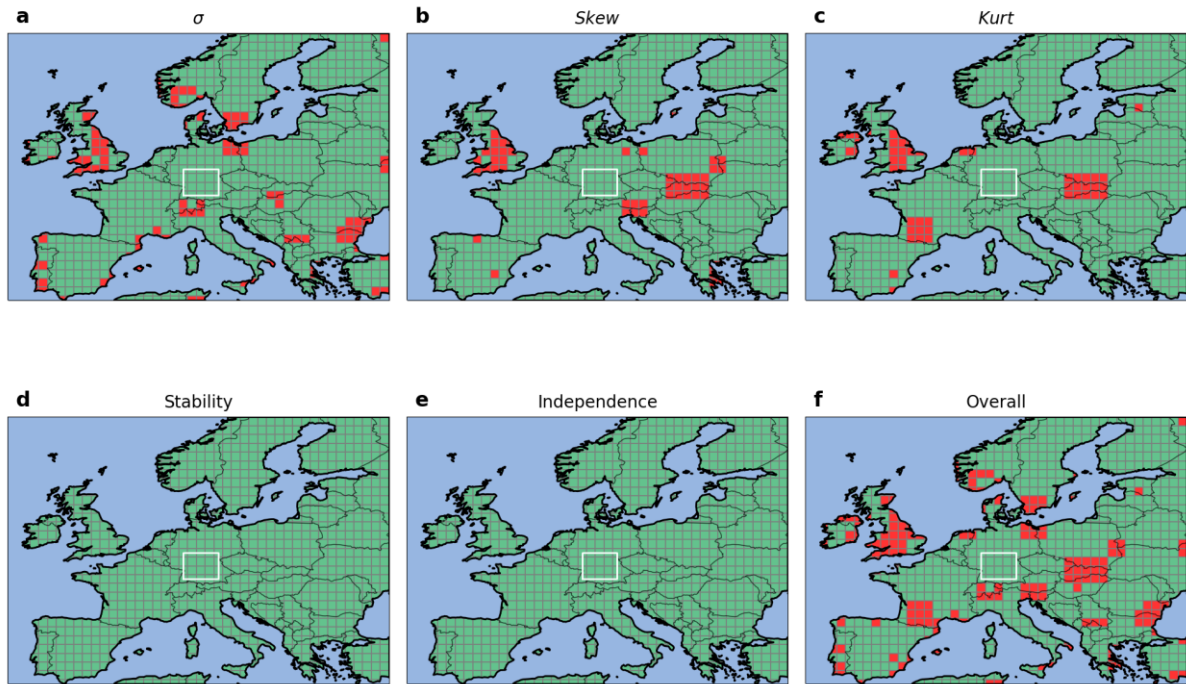


Figure S5. Maps showing grid points across the European domain where CMCC seasonal hindcasts MJJ precipitation pass (green) or fail (red) the (a, b, c) fidelity, (d) stability and (e) independence tests described in the Validation section. Panel (f) summarizes the overall results, combining the outcomes of all tests.

Suitability of the p_{MF} field over the European territory

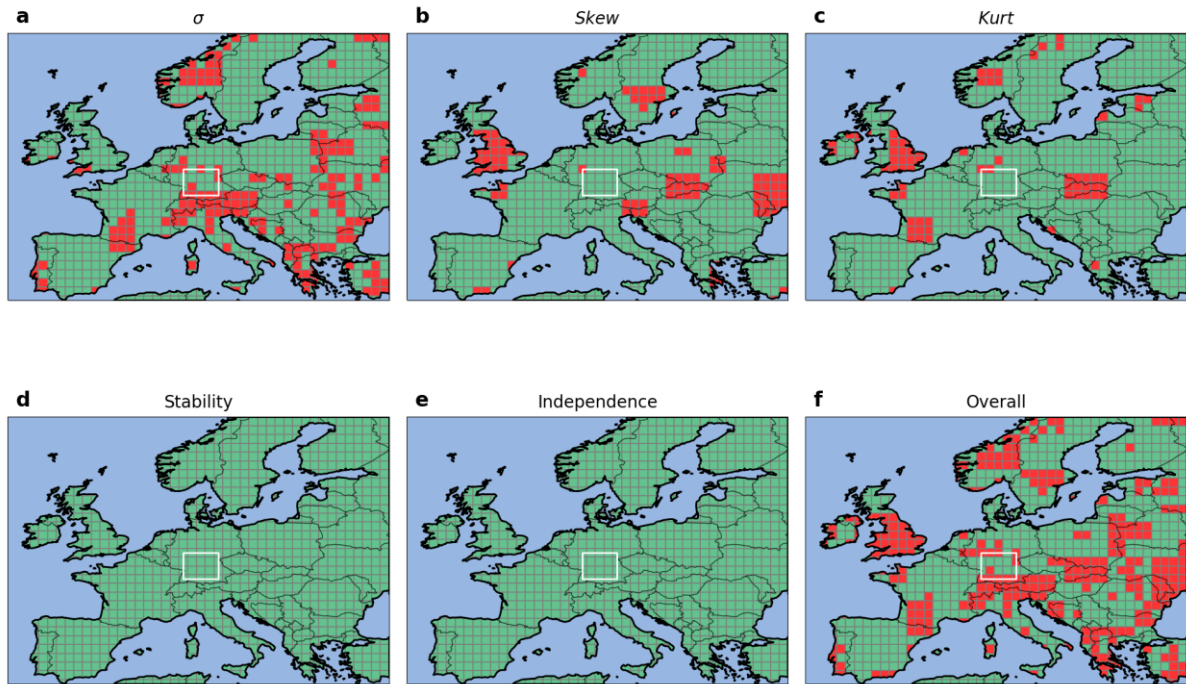


Figure S6. Maps showing grid points across the European domain where MF seasonal hindcasts MJJ precipitation pass (green) or fail (red) the (a, b, c) fidelity, (d) stability and (e) independence tests described in the Validation section. Panel (f) summarizes the overall results, combining the outcomes of all tests.