The nexus between detection uncertainty and quantifying meteorological extremes of the Euro-Atlantic atmospheric rivers

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Supplementary information/material

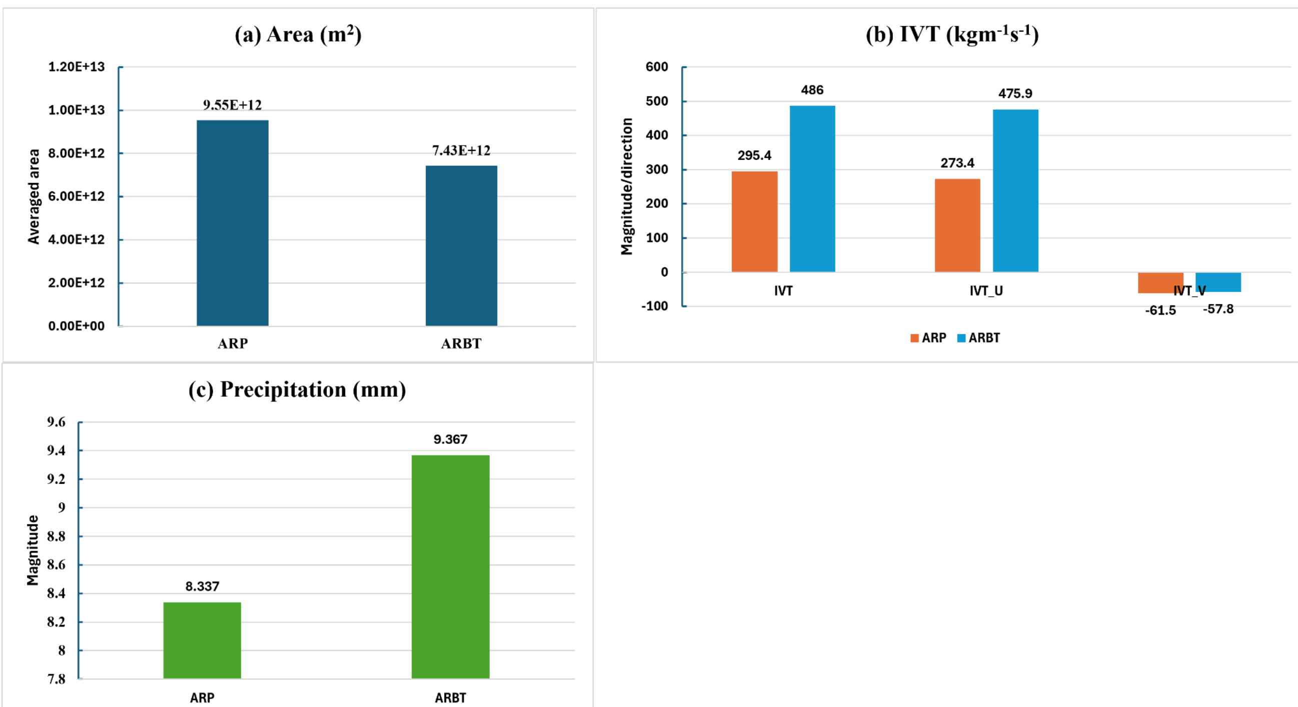

Figure S1: Difference in the magnitude of the (a) mean area covered, (b) area-averaged IVT, IVT_U and IVT_V, and (c) precipitation by the AR event based on the selected probability.

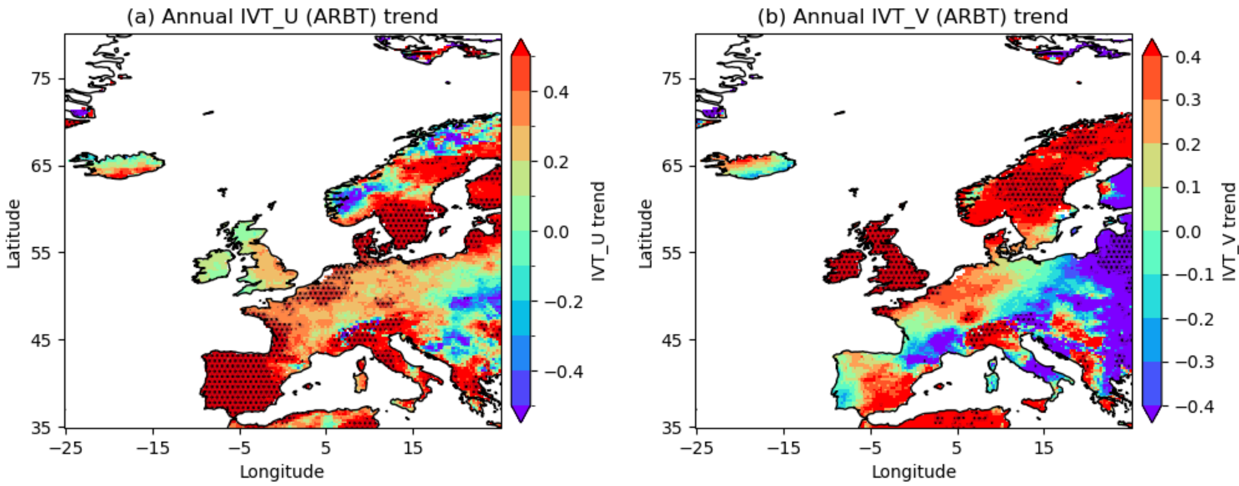

Figure S2: Annual trend of (a) zonal IVT (IVT_U)(b) meridional IVT (IVT_V) in kgm^{-1}s^{-1}. Areas overlayed with black dots are significant at 95%.

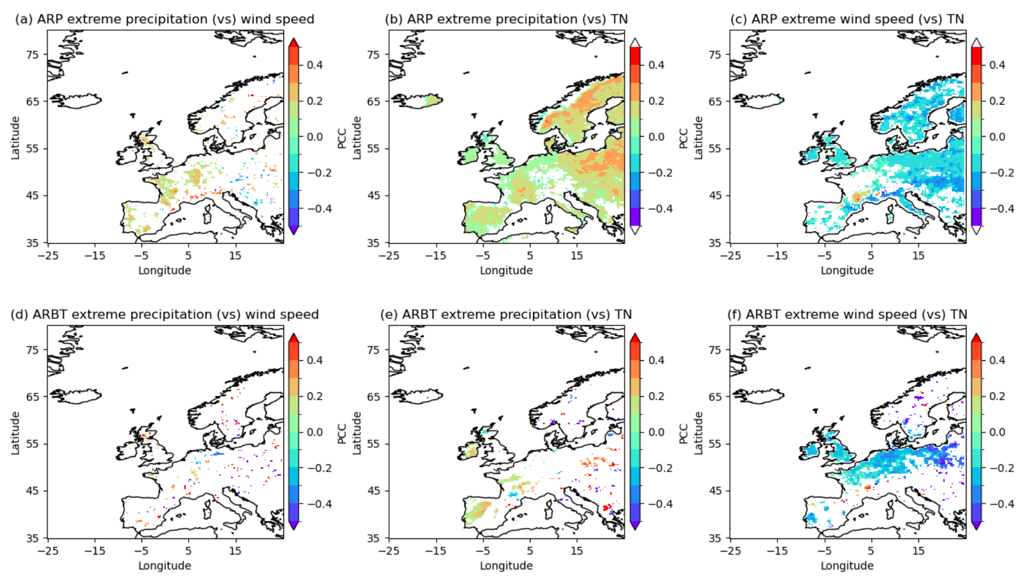

Figure S3: The spatial variability of PCCs of meteorological extremes for ARP (row 1: a, b, and c) and ARBT (row 2: c, d, and e). PCCs are computed among the daily precipitation, wind speeds (>90^{tho}%) and TN (>10^{tho}%). All PCCs are significant at 95%.

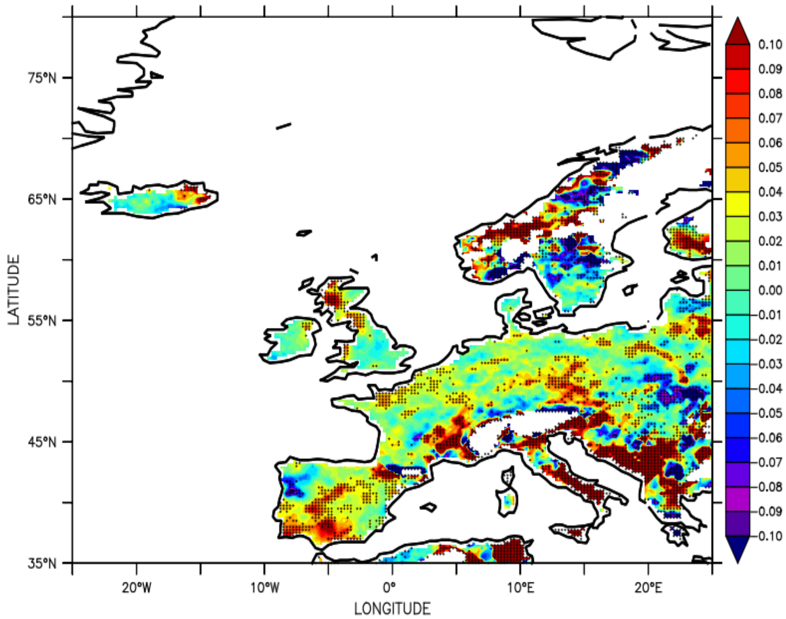

Figure S4: Annual precipitation trend (mm/yr) associated with ARBT. Overlaid dots show the area with significant trend (95% and above) values.

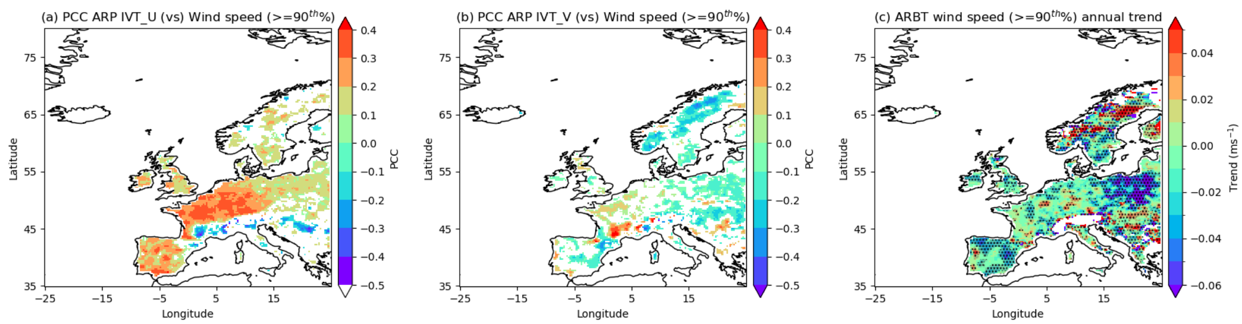

Figure S5: ARP PCCs between daily wind speed and (a) daily IVT_U and (b) IVT_V. Only significant (95%) PCC values are shown.

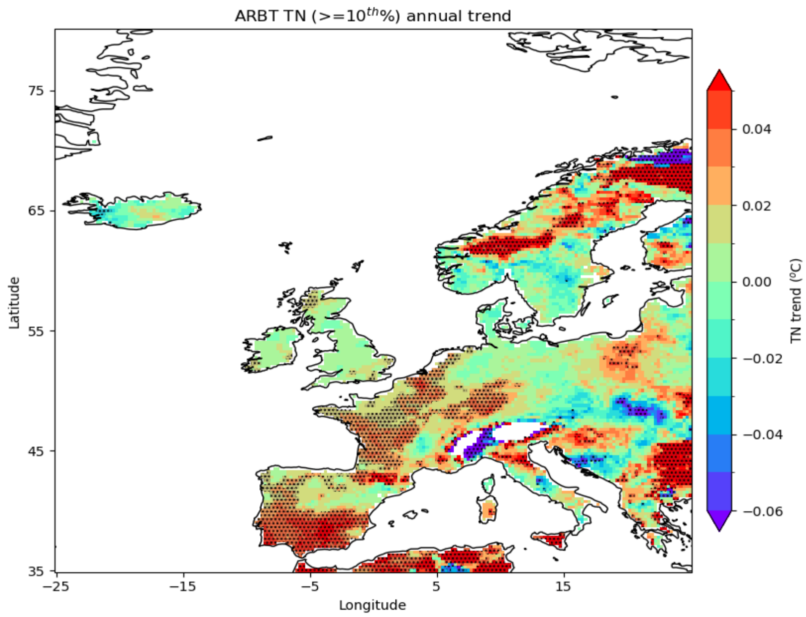

Figure S6: Annual trend of ARBT TN (>=10th%) in degree centigrade. Areas with a significant trend (95% and above) are marked with dots.