



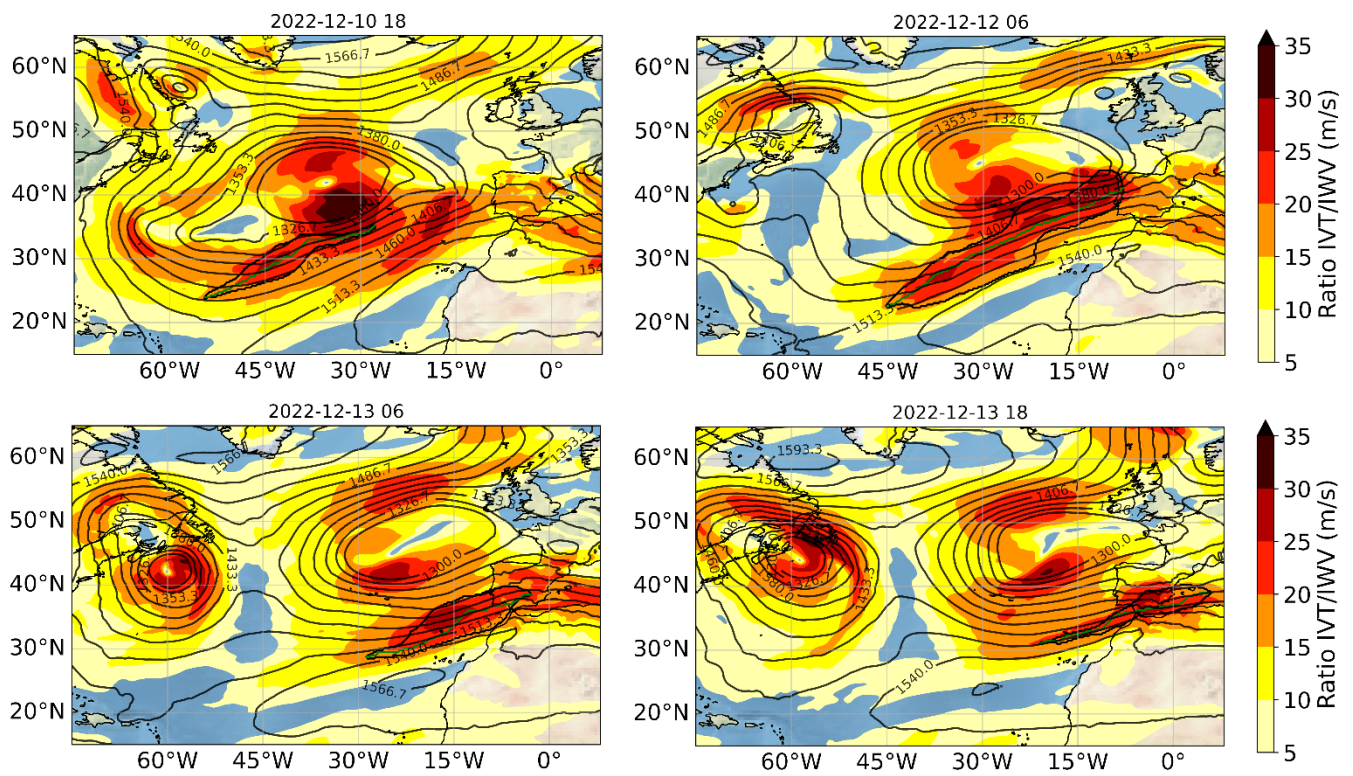
Supplement of

The record-breaking precipitation event of December 2022 in Portugal

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5 **Figure S1 – Spatial distribution of the dynamical component of the IVT (IWV – Integrated water vapor). The black contour lines represent the geopotential height field at the 850 hPa isobar. The dynamical component is obtained by calculating the ratio between the IVT and the IWV. The black contour (thin green line) represents the AR area (axis).**

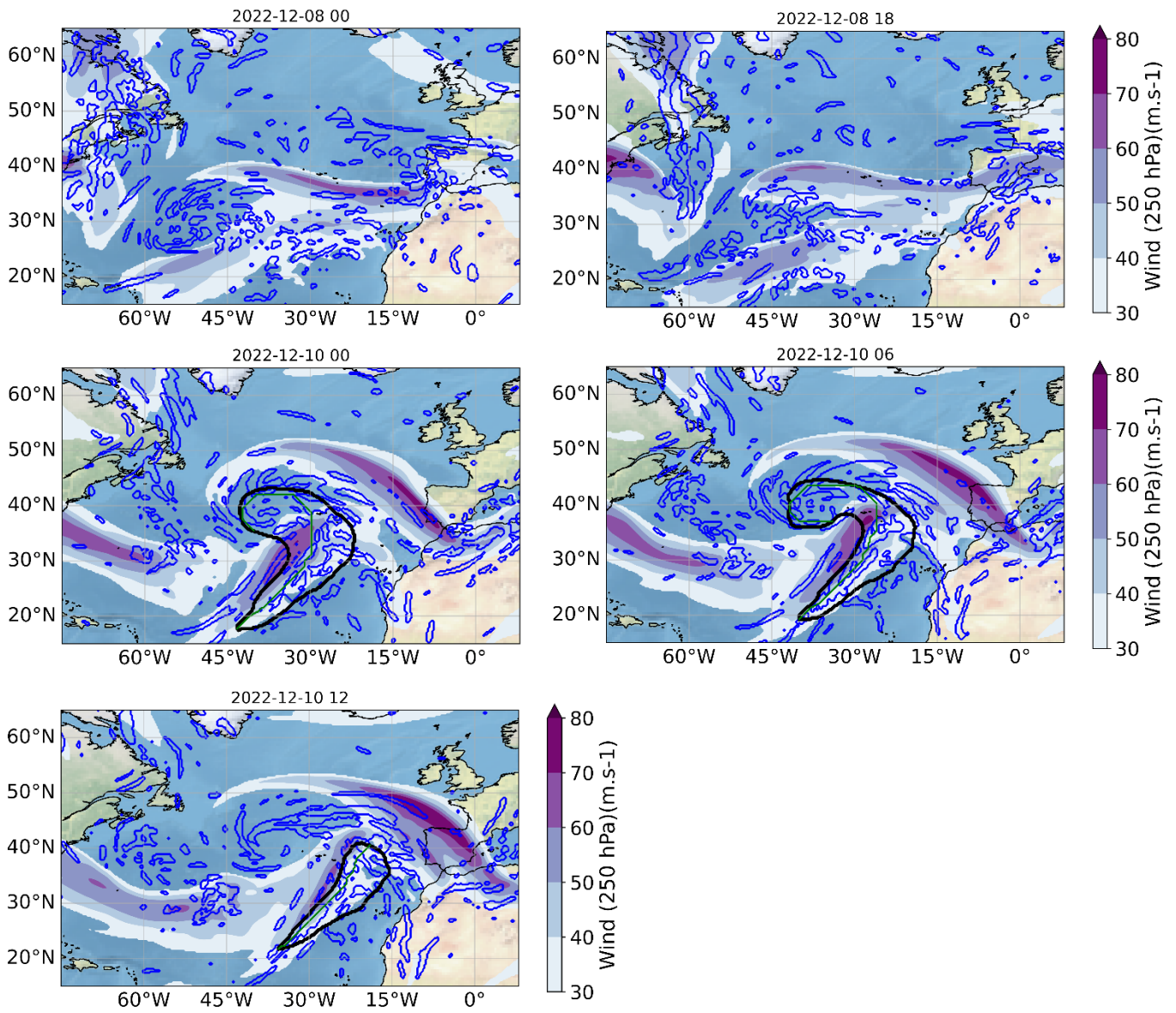
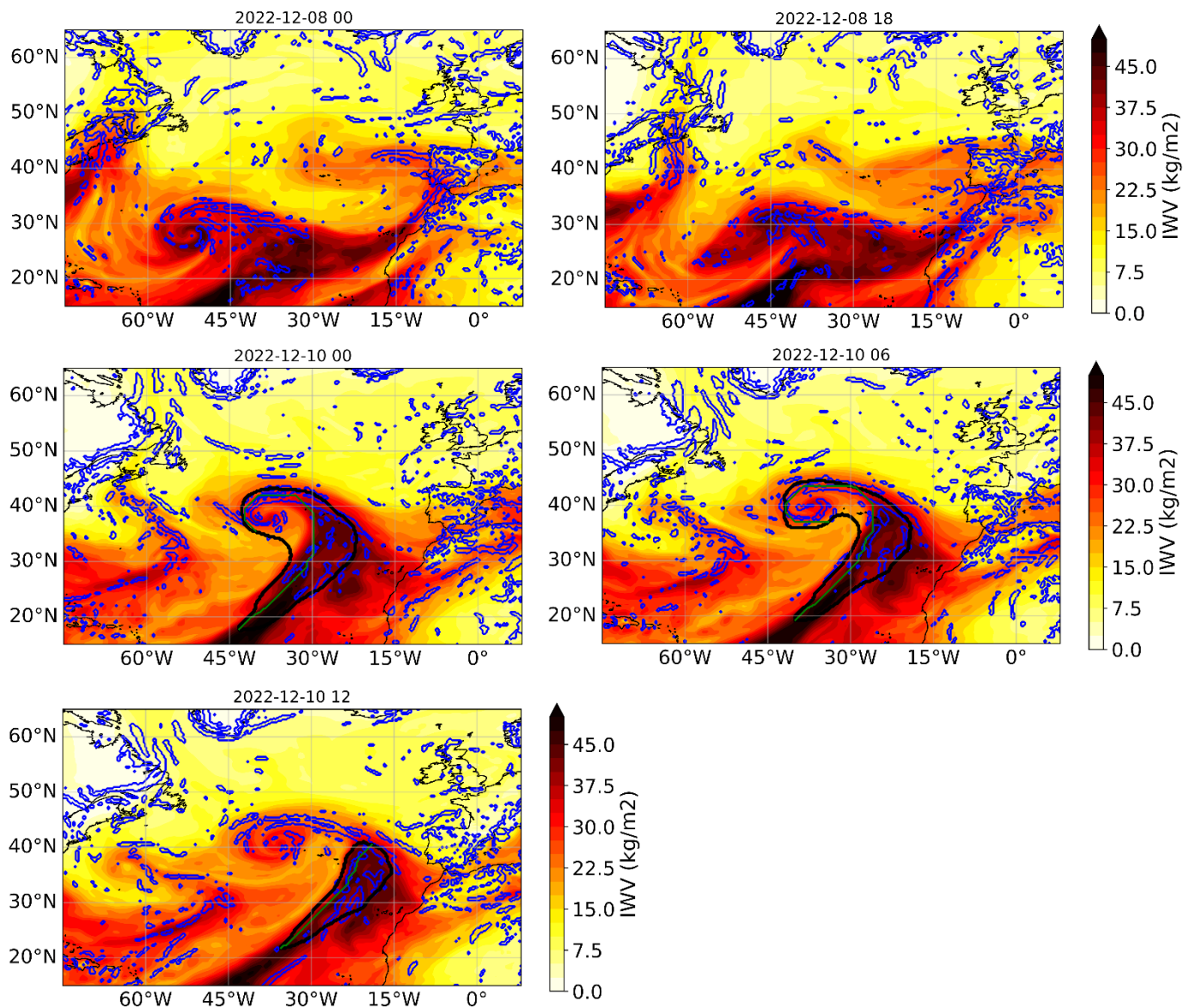


Figure S2 – Spatial distribution of the 250 hPa wind speed, with the blue contours representing the high-level divergent pattern for values higher than $0.3 \times 10^{-4} \text{ s}^{-1}$. The black contour (thin green line) represents the AR area (axis).

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15 **Figure S3 – Spatial distribution of the Integrated Water Vapor (IWV). The blue contours represent the convergent pattern at low-levels for values lower than $-0.3 \times 10^{-4} \text{ s}^{-1}$. The black contour (thin green line) represents the AR area (axis).**