Figure S1. The average pattern of the IVT for December (period 1980-2019).

Figure S2. The pattern of total column water (units: kg/m2) for **a)** the Daniel storm for 16 December 2019, **b)** Elsa storm for 19 December 2019, and **c)** Fabien storm for 21 December 2019 (every six hours: 00, 06, 12 and 18 UTC).

Figure S3. Daily precipitation from E-OBS (blue bars) and ERA5 (orange bars) for December 2019. R values represent the correlation between both series.