



## **Generation of a Catalogue of European Windstorms**

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The probability of multiple wind-storm events within a year is crucial to any (re)insurance company writing European wind business. Indeed, the volatility of losses is enhanced by the clustering of storms (cyclone families), as occurred in early 1990 (Daria, Vivian, Wiebke), December 1999 (Lothar, Martin) or December 2015 (Desmond, Eva, Frank), among others. In order to track winter extratropical cyclones, we use the maximum relative vorticity at 850 hPa of the new-released long-term ERA-20C reanalysis from the ECMWF since the beginning of the 20th Century until 2010. We develop an automatic procedure to define events. We then quantify the severity of each storm using loss and meteorological indices at country and Europe-wide level. Validation against market losses for the period 1970-2010 is undertaken before considering the severity and frequency of European windstorms for the 110 years period.