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Extreme Windstorms Catalogue: A tool for re-insurers and researchers

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European windstorms over the past 30 years have caused widespread damage to properties insured via insurance brokers, which are themselves insured by re-insurance companies. Detailed knowledge of these events is vital to calculating future insurance premiums, however it is also of interest to researchers to investigate the dynamics of “extreme” windstorms. This catalogue aims to provide high resolution data on historical large loss-producing windstorms that can be used by both the re-insurance industry as well as by research.

In this presentation, the tracks of events that caused the largest insurance losses over the past 30 years are investigated. The events are identified using a tracking algorithm (Hodges 1994, 1995) in ERA-Interim 3 hourly re-analysis data, and NCEP 1 hourly re-analysis data. The lifecycles of the events are also examined.

A problem with such catalogues is that the definition of an “insurance loss event” and a “meteorologically interesting event” are often at odds, with different storms being identified for each group. Whilst several indices have been suggested (e.g. Leckebusch et al. 2008) to calculate the insurance loss based on meteorological variables, this presentation will also look at determining whether a simple metric can be used to classify an event as both “meteorologically interesting” and as an “insurance loss”.