

HIGH-RESOLUTION RE-ANALYSIS OF EXTREME WEATHER EVENTS - PART B: APPLICATION IN RISK ASSESSMENT

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Extreme weather events like winter storms over Europe are of special interest for the insurance as well as reinsurance industries. Risk assessment for insurance and reinsurance portfolios requires precise knowledge of the maximum gust wind speeds over a regular grid. As a globally active reinsurer, PartnerRe assigned MeteoSwiss with the reanalysis of 100 historical storms over Europe from 1957 onward. Part B of this presentation concentrates on the application of the resulting swath maps

In a first step the damages resulting from the individual events needs to be calibrated against real event losses. As basis on the hazard side two gust speed schemes are available, first the operational weather service 10m gust speed, second alternative gust scheme as proposed by Brasseur and explained in Part A of this presentation.

Both gust schemes are used to reproduce actual reported insurance losses on a detailed basis. In comparing the resulting losses after fitting a vulnerability function the gust speed scheme that reproduces the overall loss distribution best has been selected. In a second step, the selected gust speed together with the best fitting vulnerability function is used to reproduce a market loss for selected damaging winter storms over Europe.