



Complex weather-related severe events in future climate scenarios

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Severe weather-related events are often a result of a particular combination of values of several atmospheric parameters. Examples of such events are avalanches, which are linked not only to intense precipitation, but temperature and wind. Similarly to avalanches, wet-snow icing is sensible not only to the intensity of precipitation, but to wind and in particular temperature. In the present study, the frequency of such severe weather-related events is explored in climate simulations provided by the ENSAMBLES project. The results indicate that frequency of avalanches and wet-snow icing may increase in some regions of Iceland, while they are predicted to decrease in other regions. The results also show considerable sensitivity of the evolution of the frequency of events to height above sea level.