



Extreme precipitation in Central Norway in current and future climate.

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An extreme wintertime precipitation event in Central-Norway is analyzed and it is found that the event is associated with not only extreme precipitation as such, but extreme winds and exceptionally high temperatures. The extreme winds contribute to very large mesoscale enhancement of the precipitation, a feature that is poorly represented in large-scale models. Simulations are performed to verify this.

An investigation of a future scenario, based on a dynamic downscaling indicates a substantial increase in the frequency of precipitation events of this kind in the 21st Century. However, the frequency of events with strong persistent westerly winds does not increase, indicating that the mesoscale orographic forcing may be similar as in the present climate.