

# **The August 2005 Flood in the Northern Alps**

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In August 2005 intense rainfall over more than 48 hours caused major flooding and land slides in a 400 km section of the Alpine ridge in Switzerland, Austria and Germany. With an estimated damage of more than 1.5 Billion Euros, this was one of the most disastrous weather events in Switzerland. Here we present a comprehensive analyses and interpretation of the meteorology and precipitation mechanisms during the event. We document the skill of the numerical forecasting system of our service and quantify the rainfall amounts and distributions from Alpine-wide gridded precipitation analyses. A climatological comparison of the event is presented by comparison to previous precipitation records, estimation of return periods through extreme value analysis, and by comparison to previous heavy rainfall events in the region.