Geophysical Research Abstracts
Vol. 14, EGU2012-13290, 2012
EGU General Assembly 2012

Progress in Fine-scale Observations and Simulations of the Atmosphere over the complex terrain of the Bergen region in Western-Norway

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The complex terrain of Western-Norway creates every day a multi-faceted picture of the atmospheric flow. There are complicated patterns of winds, temperature and precipitation where the spatial variability may vary by hundreds of percent. Gradually, the Bergen School of Meteorology is contributing to a network of ever-increasing density of both observations and simulations the atmosphere over the Bergen (Bjørgvin) region. The network now consists of more than 30 automatic weather stations, 5 mobile stations and a microwave radiometer observing the temperature profile of the atmospheric boundary-layer. The atmospheric flow is simulated in real-time at high-resolution and the output is made available for the general public. An example of a weather situation with great spatial and temporal variability is presented.