

**PARALLEL SESSION C: IMPACTS AND APPLICATIONS**  
**C2: REGIONAL ATMOSPHERIC AND OCEAN CIRCULATION SYSTEMS**

**Simulation of snow bands in the Baltic Sea area with the coupled  
atmosphere-ocean-ice model COSMO-CLM/NEMO-Nordic**

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Long bands of snow over the Baltic Sea area are common during late autumn and early winter. The phenomenon occurs when cold air flows over warm water surface, enhancing convection and leading to heavy snow fall. Six snowband events from 1985 to 2010 are simulated by using the coupled atmosphere-ocean-ice model COSMO-CLM/NEMO. The model results showed that the stand-alone COSMO-CLM forced by re-analysis data ERA-Interim and the coupled system COSMO-CLM/NEMO-Nordic well reproduced the snowband events with high contrast of temperature between the surface and higher atmosphere layer as well as the sharp bands of precipitation over the sea.

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