

Séminaire

**17 Février 2014, 14:00**  
**Salle Louis Lliboutry, LGGE**

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### **Mutual interaction between atmospheric flow and high-latitude glaciers**

The atmospheric flow patterns over and around the European Arctic are complex and include a wide range of interesting features. This includes katabatic winds and their topographic modification by large scale flow and other mesoscale phenomena like orographically induced low level jets and roll clouds during cold air outbreaks over coastal seas. The redistribution of snow by dynamically and thermally driven flows frequently leads to an inhomogeneous snow mass distribution on glaciers and ice caps. Together with the thermodynamic impact of drifting snow sublimation on the atmospheric surface layer, these processes significantly affect the surface energy and mass balance of glaciers and ice caps as well as their internal structure. This lecture presents some results and needs from ongoing research projects in Svalbard dealing with local to mesoscale flow patterns, snowdrift and cold air outbreaks in Svalbard.