

Séminaire

Lundi 23 Novembre 2015, 11h00 sallle L. LLiboutry, LGGE

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Atmospheric circulation patterns and subsequent cryosphere changes for Arctic warm periods during the last 100 years

The changes occurring in the Arctic are both substantial and rapid, and different parts of the Arctic climate system are involved. The sea ice cover is retreating at an alarming rate. The ocean and surface temperatures are rising. The current temperature rise in the Arctic is about twice as much as the global average.

This talk investigates Arctic climate variability during the last 100 years, with a main focus on atmospheric processes during warm periods. A key objective is to determine large-scale climate patterns and dynamics which might support an extensive heating of the Arctic atmosphere. Using climate models, reanalyses and reconstructions, atmospheric heat transport and circulation anomalies are examined.

We show that Arctic climate variability, internally or externally triggered, impacts midlatitude climate evolution. Counter intuitive features such as snow depth increase can occur in remote locations during Arctic warm periods.