

Plenary Lecture - 1
MONDAY September 7th

Prof. Caroline Leck

Stockholm University, Department of Meteorology

Stockholm - SWEDEN

Title of Lecture

Possible links between marine microorganisms, cloud-albedo and sea ice-melt in the Arctic?

Chairs: Astrid Kiendler-Scharr and Urs Baltensperger

Abstract

In the Arctic clouds are very important for determining the melting of the sea ice. Marine gels have been proposed to dominate the available cloud condensation nuclei (CCN) population. But does marine gels predominately control the optical properties of the clouds? Could there be other biological controls on the formation of the cloud over the Arctic sea ice, and if so will biological activity and production of CCN increase or decrease with melting of the ice? To help answering these questions a review of our present knowledge concerning possible links between Arctic marine biology, cloud properties and ice-melt will be given.