

Category

AC Atmosphere, Climate

Session Number

AC-2

Session Title

Polar meteorology, climatology and stratospheric processes

Session Description

Understanding the meteorology and climatology of Polar regions is essential for evaluating their role in the global climate system as well as in projecting future changes to the Polar environment resulting from anthropogenic forcing. The Polar middle atmosphere is also affected by human-induced phenomena, the stratospheric ozone depletion above all, whose effects extend globally and can influence tropospheric circulation and surface climate as well, therefore playing a key role in seasonal and sub-seasonal weather forecasts. Yet, our understanding of Polar lower and middle atmospheric processes and their linkages to a changing climate is limited also due to sparse observations and insufficient modeling efforts.

This session offers the possibility of reviewing what important knowledge the community is still lacking and which instruments/tools/studies could potentially fill these gaps. We invite contributions on all observational, modeling, and attribution aspects of Arctic and Antarctic meteorology, climatology, and stratospheric chemical and physical processes, including the connections with tropical climate variability and seasonal weather forecasting at high and middle latitudes.

Keywords: Polar, Meteorology, Stratosphere, and Climatology

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