

## Solar influence study group for SPARC

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A SPARC working group 'Solar Influence for SPARC (SOLARIS)' is started under GCM-Reality Intercomparison Project for SPARC (GRIPS) project. The objective of this group is 'Modeling and understanding the solar influence on climate through stratospheric chemical and dynamical processes' in collaboration with SCOSTEP CAWSES working group Theme 1 (Solar Influence on Climate).

Main questions addressed include,

1. What is the mechanism for solar influence on climate (dynamical and chemical response in the middle atmosphere and its transfer down to the Earth's surface)?
2. How do the solar cycle and QBO interact? What are the mechanisms?
3. What is the spatial structure of the solar signal in ozone and temperature? To understand discrepancies between different observations and model experiments.
4. What is the influence of energetic particles in the MA and lower thermosphere region?

To answer these questions coordinated studies are carried by using variety of models: Thermosphere-Mesosphere-Stratosphere-Troposphere-model, Chemistry Climate Model, Atmospheric general circulation model and Ocean coupled model. Mechanistic model and observational studies are also made to understand and identify the mechanism.

The first SOLARIS workshop was held in October 2006 at NCAR in Boulder, Colorado, USA. This workshop was the latest in a series of meetings, beginning with the December 2004. The summary report and the activity is found in the following SOLARIS home page (<http://strat-www.met.fu-berlin.de/~matthes/sparc/goals.html>).