



Second Announcement for a SPARC Workshop on:

Stratospheric Sulfur and Its Role in Climate (SSiRC)



Date: 28-30 October 2013, Location: Atlanta, Georgia, USA

Call for papers

The stratospheric aerosol layer is a key element in the climate system. The present understanding of how the stratospheric aerosol layer may be affected by future climate change and how the stratospheric aerosol layer may drive climate change is very limited because climate models generally do not account for the interaction between the sulfur cycle and changes in the climate system. To improve the understanding of relevant processes and to better understand the role of stratospheric sulfur for climate change, the WCRP's (World Climate Research Programme) SPARC (Stratospheric Processes and their Role in Climate) activity Stratospheric Sulfur and Its Role in Climate (SSiRC) is organizing a scientific workshop for 28-30 October 2013. More information to SSiRC can be found here: <http://www.awi-potsdam.de/atmo/SSiRC/>

Workshop Goals: The SSiRC Workshop will provide a platform to share information regarding activities already underway in this field. We particularly welcome contributions related the understanding of the variability of the stratospheric aerosol layer and its impact on climate and vice versa. Special emphasis will be placed on the role of UT/LS transport processes on stratospheric sulfur. We seek to encourage discussion of new measurements of sulfur containing compounds, such as COS, DMS, and non-volcanic SO₂ in the upper troposphere and stratosphere (UTS) globally. We also plan to discuss requirements for the inclusion of interactive sulfur chemistry and aerosol microphysics in Chemistry Climate Models (CCMs) and Earth System Models (ESMs) and seek to initiate new model and data inter comparisons. Workshop topics include:

- Measurements (in-situ, ground based, satellite) of sulfur containing species (e.g. SO₂, COS) and aerosol in the stratosphere and the tropical troposphere, analyses of their changes and interannual variability.
- Process studies of sulfur chemistry, gas to particle conversion, microphysics and aerosol removal and the interactions with dynamics and transport in the tropical troposphere, the TTL and the global UTS. Parameterization schemes for these processes for global models.
- Studies of the impact of volcanic eruptions on climate and atmospheric composition.
- Studies of the climate response (in terms of circulation and chemistry) to variations in UTS aerosol.
- The scientific basis for climate engineering schemes based on stratospheric aerosols.

Workshop Structure and Format: The workshop will consist of a combination of invited and contributed talks and posters. Confirmed invited speakers include Stefan Fueglistaler, William Randel, Alan Robock and Debra Weisenstein. Time for open discussion will be available during sessions.

Online registration and abstract submission <http://www.ssirc.gatech.edu/>

- Abstract submission open: 1 July 2013 – 30 August 2013
- Deadline for abstract submission for people requesting travel support: 15 August 2013
- Registrations open: 1 July 2013

Expressions of interest in the workshop that are both welcome and appreciated may be sent to either Larry Thomason or Stefanie Kremser.

Organizing Committee: [Markus Rex](#) (AWI, Germany), [Claudia Timmreck](#) (MPI-M, Germany), [Larry Thomason](#) (NASA, USA), [Jean-Paul Vernier](#) (NASA, USA), [Stefanie Kremser](#) (Bodeker Scientific, New Zealand). Chair of the Local Organizing Committee: [Hsiang J \(Ray\) Wang](#) (Georgia Tech, USA).