



# SPARC Workshop 6/7 February 2012

## Zürich, Switzerland

**Time and date:**

Monday, 6 February 2012, 9:15, to 7 Tuesday 2012, 12:15

**Location:**

Swiss Federal Institute of Technology Zürich (ETH)  
Main building (HG), Rämistrasse 101  
Floor G, Room HG G60 (Semperaula)

**Participation:**

Free of charge. Participation of students and other young scientists encouraged. Please inform Anke Witten at the SPARC Office ([office@sparc-climate.org](mailto:office@sparc-climate.org)) (by 31 January, as food and beverages will be provided).

**See poster session on Monday evening and contribute your work!**

### Monday, 6 February 2012 (09.15 -17:15)

08:30-09:15: Registration

**1. Introduction (09:15-09:30)**

Welcome and aim of the workshop (Tom Peter, Ted Shepherd)

**2. Long-term climate variability (09:30 – 11:30)**

Jürg Beer (EAWAG, Dübendorf)  
Longterm climate variability attributable to solar variability

Eugene Rozanov (PMOD, Davos)  
Potential decrease of the solar activity and its implications for the future climate and ozone layer

Stefan Brönnimann (Univ. Bern)  
Climate variability caused by volcanic eruption



**Cont'd**

Christoph Appenzeller (MeteoSwiss)  
Overview over the Swiss Climate Change Scenarios CH 2011

**Coffee break (11:30-11:50)**

**3. Stratospheric trace gases and their trends**

Greg Bodeker (Bodeker Scientific, New Zealand)  
Differences in ozone changes between southern and northern midlatitudes

Johannes Staehelin (ETHZ)  
Long-term changes of stratospheric ozone deduced from data analyses from Swiss and global measurements

**Lunch**

**Sandwiches (13:00-14:15)**

Klemens Hocke (University of Bern)  
Water vapour measurements and changes

Stefan Reimann (Empa Dübendorf)  
CFC, HCFCs, HCFs: Sources and long-term trends as deduced from ground-based measurements

Joan Alexander (Boulder, CO)  
Gravity waves and their effects on stratospheric dynamics

**Coffee break (15:45-16:00)**

Veronika Eyring (DLR, Germany)  
Modelling of stratospheric ozone changes: Experiences from CCMVal

Ted Shepherd (University of Toronto)  
Stratosphere-troposphere dynamics and climate change

Thomas Peter (ETHZ)  
The atmospheric ice phase

**4. Poster session (room to be announced, 17:30-19:30)**

Poster contributions are encouraged.  
Opportunity to discuss your work with world-leading scientists.

Please inform Anke Witten at the SPARC Office ([office@sparc-climate.org](mailto:office@sparc-climate.org)) (by 31 January), in case you wish to present a poster.



## Tuesday, 7 February 2012 (09:00-12:15)

### 5. UT/LS and related process (09:00-10:30)

Andrew Gettelmann (NCAR, Boulder, Co)  
The UT/LS and its role in climate

Michelle Santee (JPL)  
Trace gases, their variability and changes deduced from satellite observations

Heini Wernli (ETHZ)  
Processes near the extratropical tropopause and their relevance for SPARC

**Coffee break (10:30-10:50)**

### 6. Modelling of tropospheric trace gas variability

Isabelle Bey (ETHZ)  
Selected results from global numerical tropospheric chemistry simulations

Andrea Stenke (ETHZ)  
Tropospheric chemistry modeling by SOCOL

Dominik Brunner (Empa, Dübendorf)  
Selected regional tropospheric chemistry modeling results

**End at 12:20**

**Lunch**  
**Sandwiches (12:20-13:30)**



## SPARC SSG Meeting, 2012, Zürich

Workshop Participants are invited to participate in the first afternoon

### Time and date:

Tuesday, 7 February 2012, 14:00, to 10 Friday 2012, 15:00

### Location:

Swiss Federal Institute of Technology Zürich, (ETHZ)  
Main building (HG), Rämistrasse 101  
Floor G, Room HG G60 (Semper aula)

## Tuesday, 7 February 2012 (13:30 -17:15)

### 1. Introduction (14:00-14:30)

- 1.1. **Welcome** (SPARC Co-chairs)
- 1.2. **Logistical and practical information** (Joh. Staehelin)
- 1.3. **Discussion of agenda** (Ted Shepherd)

### 2. WCRP/SPARC update (14:30-15:30)

- 2.1. **OSC and SPARC perspective (14:30-15:00)**  
(Greg Bodeker and Ted Shepherd)
- 2.2. **WCRP update (15:00-15:30)**  
JSC meeting after OSC (representative of JSC or JPS)

### Coffee break (15:30-16:15)

Including a short Executive Session for SSG members

### 3. Summary of local workshop (16:15-17:15)

60 min, including resulting discussion (Thomas Peter)

## End of programme



Contribution Poster Session

Name	First name	Institution	Title
Anet	Julien	IAC, ETH Zürich	How does the solar variability affect global climate?
Arfeuille	Florian	IAC, ETH Zürich	Uncertainties in modelling the stratospheric warming following Mt. Pinatubo eruption
Brugnara	Yuri	Inst. of Geogr., U Bern	Solar signal in long upper-air statistical reconstructions
Cirisan	Ana	IAC, ETH Zürich	Impact of modified sulphate aerosol concentrations on northern hemisphere mid-latitude cirrus clouds
Dällenbach	Kaspar	IAC, ETH Zürich	Chlorine activation by volcanic aerosols
Emmenegger	Lukas	EMPA	Development, deployment and validation of a QCL spectrometer for NO <sub>2</sub> measurements at mountain sites
Engel	Ines	IAC, ETH Zürich	Towards heterogeneous ice and NAT nucleation rates based on PSC backscatter measurements onboard the CALIPSO satellite
Jacques	Martin	KLIMET - U Bern	Exploring the Summertime Climate Variability over Southern South America during the 20th Century
Keller	Christoph	EMPA	Inverse modelling of European halogenated greenhouse gas emissions using FLEXPART
Lienhard	Daniel	IAC, ETH Zürich	Impeded Water Uptake of Viscous Organic Aerosol Particles
Pandey	Shubha	IAC, ETH Zürich	The Transport of Peroxy Acetyl Nitrate (PAN) to High Alpine Site from Different Source Regions
Peter	Thomas	IAC, ETH Zürich	New soundings of cirrus clouds and upper tropospheric humidity
Pinti	Valeria	IAC, ETH Zürich	Ice nucleation properties of volcanic ash from Eyjafjallajökull
Schnadt	Christina	EMPA	Missing Stratospheric Ozone Decrease at Southern Hemisphere Middle Latitudes after Mt. Pinatubo: A Dynamical Perspective
Shapiro	Anna	PMOD Davos	Uncertainties of the SSI (Spectral Solar Irradiance) data and middle atmosphere response
Sheng	Jianxiong	IAC, ETH Zürich	Parametric Studies of Mt. Pinatubo Eruption
Skerlak	Bojan	IAC, ETH Zürich	A global ERA-Interim Climatology of Stratosphere-Troposphere Exchange
Song	Mijung	IAC, ETH Zürich	Liquid-liquid phase separation and morphology of internally mixed dicarboxylic acids/ammonium sulfate/water particles
Stähelin	Johannes	IAC, ETH Zürich	Surface ozone changes in Switzerland in relation to emission changes and climatic factors
Staufer	Johannes	IAC, ETH Zürich	Comparison of Ozone Measurements by Ozone Sondes and by MOZAIC bases on Back Trajectories
Tummon	Fiona	IAC, ETH Zürich	Aerosol-climate interactions over southern Africa: Synoptic types and interannual variability
Zellweger	Christoph	EMPA	Summing-up audit results of the World Calibration Centre for Surface Ozone (WCC-Empa) obtained during the past 15 years
Zellweger	Christoph	EMPA	Surface Ozone Variability and Trends at the Global GAW Stations Assekrem (Algeria), Bukit Koto Tabang (Indonesia) and Mt. Kenya (Kenya)