

**Workshop of the SPARC Temperature Trends Activity  
April 9-10, 2015  
Victoria, BC, Canada.**

**Agenda (version 3/26/2015)**

Primary goals of the workshop:

- 1) Compare stratospheric temperature variability and trends in observations and models
- 2) Discuss/decide on the future of the SPARC Temperature Trends Activity

**Thursday April 9**

9:00-9:10 Introduction (Bill, Dian, Dave)

9:10-9:30 Cheng-Zhi Zou  
NOAA SSU Stratospheric Temperature Climate Data Record

9:30-9:50 Dian Seidel  
Observed Stratospheric Temperature Changes during the Satellite Era

9:50-10:10 Bill Randel  
Stratospheric temperatures from combined SSU and SABER observations

10:10-10:30 Andrea Steiner  
Atmospheric variability modes and trends in the UTLS from the RO record

**10:30-11:00 Coffee**

11:00-11:20 Philippe Keckut  
Temperature trends derived from lidar measurements

11:20-11:40 Michael Schwartz  
The MUSTARD project: Development of a long-term upper-stratospheric and mesospheric temperature record from limb sounding radiometers and occultation instruments

11:40-12:00 Gabriele Stiller  
MIPAS temperature trends and drifts

**12:00-1:30 Lunch at hotel**

1:30-1:50 Ben Santer  
Observed multi-variable climate signals of late 20th and early 21st century volcanic activity

1:50-2:10 Dave Thompson  
Estimating the role of natural variability in stratospheric temperature trends

2:10-2:30 Carl Mears  
A new approach to the diurnal adjustment for MSU and AMSU stratospheric channels

**2:30-3:00 Coffee**

**3:00-5:00 Discussion (facilitated by Bill Randel)**

1. Needs: Observations
2. Future of the SPARC Temperature Trends Activity

**7:00 pm - Group dinner (to be organized)**

**Friday April 10**

9:00-9:10 Introduction/recap of Day One (Bill, Dian, Dave)

9:10-9:30 Qiang Fu

Evidence of the strengthening of the Brewer-Dobson circulation from observed lower-stratospheric temperature since 1979

9:30-9:50 Rolando Garcia

Secular temperature trends in the stratosphere and mesosphere: Simulations and comparisons with observations

9:50-10:10 Nathan Gillett

Comparison of updated SSU temperatures with chemistry climate model simulations

10:10-10:30 Amanda Maycock

Diagnosing solar cycle signals in stratospheric ozone in CCMVal models and satellite data. Assessing the dependence on the assumed stratospheric temperature record and looking ahead to CMIP6.

**10:30-11:00 Coffee**

11:00-11:20 Ulrike Langematz

Past and future temperature trends in EMAC Chemistry-Climate Model simulations

11:20-11:40 Valentina Aquila

Disentangling the roles of various forcing mechanisms on stratospheric temperature changes since 1979 with the NASA GEOS-CCM

11:40-12:00 Shigeo Yoden

Intraseasonal, seasonal, and interannual variations of the Arctic temperature in paleoclimate, present and future experiments in CMIP5 model output

**12:00-1:30 Lunch at hotel**

**1:30-5:00 Discussion (with coffee break as needed)**

1. Needs: Future simulations and observations
2. Future of the SPARC Temperature Trends Activity (redux)

**5:00 Adjourn**

**Attendees**  
**Confirmed out of town**

1. Valentina Aquila
2. Marie-Lise Chanin
3. Qiang Fu
4. Rolando Garcia
5. Ben Ho
6. Philippe Keckhut
7. Ulrike Langematz
8. Craig Long
9. Amanda Maycock
10. Carl Mears
11. Albert Osso
12. Bill Randel
13. Karen Rosenlof
14. Ben Santer
15. Gavin Schmidt (Thursday only)
16. Torsten Schmidt
17. Michael Schwartz
18. Dian Seidel
19. Viktoria Sofieva
20. Andrea Steiner
21. Dave Thompson
22. Shigeo Yoden
23. Cheng-Zhi Zou

**Confirmed local**

1. John Fyfe (Thursday only)
2. Nathan Gillett
3. Norm McFarlane
4. Michael Sigmond