



SPARC Data Assimilation (DA)
and
SPARC - Reanalysis Intercomparison Project (S-RIP) Workshops

September 8-12, 2014

NOAA Center for Weather and Climate Prediction (NCWCP)
5830 University Research Court, College Park, Maryland, USA 20740

SPARC Data Assimilation Workshop

Monday September 8, 2014

0830-0900 Arrival, Registration, Lunch order
0900-0915 Greetings and Introduction (Craig, David Jackson, Quentin)

Theme – Observation requirements and exploitation of new observations for stratosphere-troposphere data assimilation:

0915-1000 Pawan Bhartia *(Invited) Present Capabilities and Potential Applications of SNPP/OMPS for the Study of Atmospheric Chemistry & Dynamics*
1000-1030 Lawrence Coy *Effects of New Data Types and Data Assimilation System Upgrades on Middle Atmosphere Dynamics*
1030-1100 ***Break***

Theme – Troposphere / stratosphere / mesosphere interactions: Stratosphere & Troposphere

1100-1145 Andrea Lang *The Stratosphere Network for the Assessment of Predictability (SNAP) Activities Update*
1145-1215 Gloria Manney *Sudden Stratospheric Warmings in Assimilated Fields and Satellite Data: Effects on upper tropospheric and lower stratospheric composition*
1215-1245 Jean de Grandpre *Predictability study using the Environment Canada Chemical Data Assimilation (EC CDA) System*
1245-1255 Poster Introductions
1255-1345 ***Lunch and Poster Viewing***
1345-1415 Houjun Wang *Whole Atmosphere Model Simulation of Stratospheric Warming*
1415-1445 Richard Ménard *The added-value of chemical data assimilation in the stratosphere and upper-troposphere*

Theme – Troposphere / stratosphere / mesosphere interactions: Upper Atmosphere

1445-1530 John McCormack *Recent Progress in High Altitude Numerical Weather Prediction and Data Assimilation at the Naval Research Laboratory*
1530-1600 ***Break***
1600-1630 David Jackson *The Met Office Unified Model and its extension to the thermosphere*
1630-1700 Valery Yudin *Data Analysis in the Whole Atmosphere Chemistry-Climate Models*
Adjourn for Monday

September 5, 2014

SPARC Data Assimilation Workshop
Tuesday September 9, 2014

0830-0900 ***Arrival, Registration, Lunch order***

Theme – DA Methods

0900-0930 Karl Hoppel *Exploring middle atmosphere background forecast error covariances*

Theme – Data assimilation products in support of SPARC activities

0930-1015 Michaela Hegglin (***Invited***) *Data assimilation products in support of SPARC Activities*

1015-1045 ***Break***

1045-1115 Simon Chabrillat *Status and validation of stratospheric ozone analyses delivered in Near Real-Time by the European project MACC*

1115-1145 Kris Wargan *The Tropopause Inversion Layer in GEOS-5*

1145-1215 Jianjun Xu *Uncertainties Evaluation of Temperature Trends in the Stratosphere from Multiple Reanalyses Products*

1215-1330 ***Lunch and Poster Viewing***

1330-1400 Toshiki Iwasaki *Comparison of trends of polar cold air mass diagnosed from the reanalyses*

1400-1430 Craig Long *Results from assimilation of SSU / AMSU radiances in the NCEP/GFS in preparation for CFSv3*

1430-1530 Quentin Errera *Discussion on future directions of SPARC DAWG, next year's workshop, etc*

Adjourn for Tuesday

1800 Leave for Dinner at Rams Head Tavern, Savage, Maryland

Joint SPARC Data Assimilation and SPARC Reanalysis Intercomparison Project Workshops
Wednesday September 10, 2014

0800-0830 ***Arrival, Registration, Lunch order***

0830-0845 Greetings and Introduction (Craig, Masatomo, David Tan)

Morning Session – David Tan : Chair

0830-0915 Masatomo Fujiwara *S-RIP Overview / Chapter 1 (Rapporteurs: Birner & Monge-Sanz)*

0915-0945 Quentin Errera *Reanalysis of stratospheric chemical composition based on assimilation of EOS Aura MLS and MIPAS data between 2007 and 2012*

0945-1015 Chiaki Kobayashi *Brewer-Dobson circulation diagnosed from JRA-55*

1015-1045 ***Break***

1045-1115 Zac Lawrence *Intercomparisons of Polar Processing Diagnostics Derived from ERA-Interim and MERRA*

1115-1145 Siddarth Das *Four decadal climatology of intercomparison of Rocketsonde and Radiosonde with different reanalysis data: Results from Thumba*

1145-1215 Bernard Legras *A comparison of age of air and stratospheric mixing properties*

1215-1225 Poster Introductions

1225-1315 ***Lunch and Poster Viewing***

Afternoon Session – Masatomo Fujiwara : Chair

1315-1345 Dian Seidel *Satellite Observations of Stratospheric Temperature: An Intercomparison of Climate Data Records*

1345-1400 Cheng-Zhi Zou *Recalibrated SSU observations for climate reanalysis data assimilations and stratospheric temperature trend detection*

1400-1430 David Tan *Chapter 2: Description of the Reanalysis Systems (Rapporteurs: Gerber & Wang)*

1430-1500 ***Break***

1500-1525 Steven Pawson *MERRA2 Update*

1525-1550 David Tan *ECMWF Activities Update*

1550-1615 Craig Long *NOAA Activities Update*

1615-1640 Yayoi Harada *JRA Activities Update*

1640-1700 *Discussion about Current and Future Reanalyses*

Adjourn for Wednesday

September 5, 2014

SPARC Reanalysis Intercomparison Project Workshops
Thursday September 11, 2014

0800-0830 ***Arrival, Registration, Lunch order***
0830-0900 Co-Leads Meeting

Morning Session – David Tan : Chair

0900-0950 Long & Fujiwara *Chapter 3: Climatology and Interannual Variability of Dynamical Variables (Rapporteurs: Manney & Lawrence)*

0950-1040 Davis & Hegglin *Chapter 4: Climatology and Interannual Variability of Ozone and Water Vapour (Rapporteurs: Legras & Chabrillat)*

1040-1110 ***Break***

1110-1200 Birner & Monge-Sanz *Chapter 5: Brewer–Dobson Circulation (Rapporteurs: Wright & Anstey)*

1200-1250 Gerber & Zyulyaeva *Chapter 6: Stratosphere–Troposphere Coupling (Rapporteurs: Santee & Son)*

1250-1350 ***Lunch and Poster Viewing***

Afternoon Session – Masatomo Fujiwara : Chair

1350-1440 Manney & Homeyer *Chapter 7: Extratropical Upper Troposphere and Lower Stratosphere (Rapporteurs: Pendlebury & Harvey)*

1440-1530 Tegtmeier & Krüger *Chapter 8: Tropical Tropopause Layer (Rapporteurs: Orr & ?)*

1530-1600 ***Break***

1600-1700 Fujiwara *Discussion on today's presentations*

Adjourn for Thursday

1830 Leave for Dinner at Rams Head Tavern, Savage, Maryland

SPARC Reanalysis Intercomparison Project Workshops
Friday September 12, 2014

0800-0830 ***Arrival, Registration, Lunch order***

Morning Session – David Tan : Chair

0830-0900 Gray & Anstey *Chapter 9: Quasi-Biennial Oscillation and Tropical Variability*
(Rapporteurs: Sakazaki & Harada)

0900-0950 Santee, Lambert, Manney *Chapter 10: Polar Processes*
(Rapporteurs: Long & ?)

0950-1040 ***Break***

1040-1110 Pendlebury & Harvey *Chapter 11: Upper Stratosphere and Lower Mesosphere*
(Rapporteurs: Davis & Hegglin)

1110-1200 Fujiwara *Discussion on today's reports*

1200-1250 ***Lunch and Poster Viewing***

Afternoon Session – Masatomo Fujiwara : Chair

1250-1350 Rapporteurs *Review of Chapters 1-6*

1350-1440 Rapporteurs *Review of Chapters 7-11*

1440-1530 ***Break***

1530-1600 Fujiwara & Tan *New S-RIP Co-Lead + Future Meetings*

1600-1700 Long *Farewell*

Adjourn for Friday