

FIRST ANNOUNCEMENT OF the 10th SPARC DATA ASSIMILATION workshop, 8-10 September 2014 at NOAA Center for Weather and Climate Prediction (NCWCP), College Park, Maryland, USA

Dear colleagues,

It is our pleasure to invite you to participate in the Tenth Stratosphere-troposphere Processes And their Role in Climate (SPARC) Data Assimilation workshop to be held at the NOAA Center for Weather and Climate Prediction (NCWCP), College Park, Maryland, USA from 8-10 September 2014. This is one in a series of regular (usually) annual meetings which brings data assimilators and users of assimilation products together with experts in modelling, measurements and process studies. For descriptions of previous SPARC-DA workshops, please check our meeting reports in SPARC Newsletters No. 26, 28, 30, 34, 36, 38 and 40: <http://www.sparc-climate.org/publications/newsletter/>

The aim of the workshop is to motivate and better understand data assimilation through the science of the middle atmosphere. Data assimilation requires a knowledge of measurement and model errors which, in turn, require knowledge of the true underlying system- the middle atmosphere. Therefore, advancement of assimilation techniques requires interaction of assimilators with dynamicists, chemists, data providers and users of assimilation products. While contributions from all aspects of middle atmosphere (chemical and dynamical) data assimilation are sought (as in previous years), a few key areas (listed below) will be highlighted. The following experts have been invited to broaden our understanding of the true atmospheric system, highlight issues with assimilated products and help focus discussions in these areas:

- 1) Observation requirements and exploitation of new observations for stratosphere-troposphere data assimilation – **Pawan Bhartia (NASA GSFC)**
- 2) Troposphere / stratosphere / mesosphere interactions - **Jun Wang (NOAA/NWS), Andrea Lang (University at Albany, SUNY (TBC))**
- 3) Data assimilation products in support of SPARC activities – **Michaela Hegglin (University of Reading), Manuel Pulido (Universidad Nacional del Nordeste)**
- 4) Joint session with S-RIP (see below)

The first theme is motivated by changes in the global observing network which affect SPARC and related data assimilation activities. For example, for constituents, the "golden age" when plentiful data from Envisat and Aura MLS were available has passed - what shall replace this? Since middle atmosphere dynamical and constituent data are now widely used operationally, the previous division between "research" and "operational" observation missions has changed - where should we draw the new dividing line? The inclusion of the middle atmosphere in operational meteorological analyses also means that interest in the interactions between this region and the troposphere has increased, especially with regard to the impact of the stratosphere on extended range tropospheric forecasts. This, and developments in operational mesospheric analyses and forecasts, is the motivation for the second theme of the workshop. One of the foci of this theme is the activities of the Stratospheric Network on Assessment of Predictability (SNAP), a SPARC activity that spun out of discussions at previous SPARC Data Assimilation workshops. This topic ties in nicely with theme 3 - what is the future role of data assimilation products, and indeed the SPARC Data Assimilation Working Group, in support of SPARC activities?

Another SPARC activity to have spun out from the SPARC Data Assimilation Working Group is the SPARC Reanalysis Intercomparison Project (S-RIP). S-RIP will be holding its own workshop at NCWCP from 10-12 September. On 10 September a joint SPARC Data Assimilation / S-RIP session shall be held. The focus of this joint session is information exchange between the two groups and the session shall include talks of scientific interest to both groups (for example new data assimilation developments in existing or near-future reanalyses (or analyses)) and overview presentations on S-RIP and the reanalyses being used in S-RIP. **Invited speakers for this session include Dian Seidel (NOAA/OAR), representatives from reanalysis centres responsible for NCEP, MERRA, ERA and JMA reanalyses, and other speakers (TBA)**

The web-site for the workshop is under preparation and shall be announced soon. There are a large selection of hotels in the vicinity of College Park close to amenities, restaurants and local transport to NCWCP. A block of rooms at local hotels shall be reserved for participants. Further details to follow. Depending on funding, a small meeting fee (up to \$100 US) may be charged. The deadline for abstract submission is 20 June 2014. Please mark these dates in your calendars.

To submit an abstract and register for the meeting please send an email to Craig Long (craig.long@noaa.gov) by 20 June 2014 with 'SPARC DA Registration' in the subject line. In the body of the email please provide:

1. Name
2. Email address
3. Affiliation
4. Title and short abstract of presentation
5. Preference for oral or poster presentation
6. Days attending
7. Comments / questions

As with previous workshops, participants may come from various research communities besides data assimilation: middle atmosphere science, measurements, and users of assimilation products. Participants who wish to attend but who do not wish to submit an abstract should still register by 20 June

Please forward this invitation to anyone who may be interested, and look out for further, updated announcements with regard to this workshop.

If you DO NOT wish to receive further information about this workshop, please email david.jackson@metoffice.gov.uk and ask to be removed from this mail list.

Best wishes,

Quentin Errera, David Jackson and Craig Long, organizers