

**Third Stratospheric Processes And their Role in Climate (SPARC) Data Assimilation (SPARC-DA3) workshop and the SPARC Workshop on Stratospheric Winds.**

**ANNOUNCEMENT OF TWO SPARC WORKSHOPS SEPT. 12-15, 2005 in BANFF, CANADA**

**N.B. Preliminary indications of an intention to participate are requested by **JANUARY 3, 2005** (see below). Please respond to [sparc@atmosp.physics.utoronto.ca](mailto:sparc@atmosp.physics.utoronto.ca)**

Dear colleagues,

It is our pleasure to invite you to participate in the **Third Stratospheric Processes And their Role in Climate (SPARC) Data Assimilation (SPARC-DA3) workshop**, in Banff, Canada on Sept. 12-14, 2005. The first workshop was held in Baltimore in June 10-12, 2002 and the second in Florence, Italy on June 4-6, 2003.

The goals of the present workshop are to (1) present work on and encourage discussion of upper tropospheric, stratospheric and mesospheric assimilation of chemical and dynamical variables, (2) identify issues that can be addressed by the working group, and (3) consider the need for an intercomparison project of stratospheric ozone analyses and, if the need is clear, to initiate this work. Presentations on all aspects of data assimilation for the upper troposphere, stratosphere and mesosphere are invited. Specific themes include:

- (1) Representation of dynamical aspects of analyses such as stratospheric sudden warmings, tropical winds and the QBO,
- (2) Quasi-horizontal mixing properties of analyzed winds, and representation of the sub-tropical mixing barrier,
- (3) Diagnosis of long time scale errors of analyzed winds (e.g. diabatic circulation),
- (4) Analysis of water vapour in the tropical tropopause region,
- (5) New developments in data assimilation and retrieval theory,
- (6) Assimilation of constituent observations from research and operational satellites,
- (7) Coupling of chemical and meteorological data assimilation systems.

As this is a workshop, presentations will be relatively long and there will be an emphasis on discussion. This workshop will overlap by one day with a SPARC workshop on stratospheric winds (see below). Presentations of relevance to both workshops will occur on the overlapping day. Participants are invited to attend either or both workshops, for any number of days. There will be a daily rate of \$203 CDN that covers accommodation, all meals, taxes and gratuities. There may be a small meeting fee to cover coffee breaks and, possibly, a banquet. Note that \$1 CDN = \$0.85 US = \$0.65 EURO, approximately.

The workshop will be held at the Banff Centre in Banff, Canada, which is about a 90 minute drive from Calgary. There are non-stop flights to Calgary from many US airports as well as London and Frankfurt. More information about the venue can be found at: <http://www.banffcentre.ca/conferences>

A web-site for the SPARC-DA3 workshop is planned and it will contain information on travel to Banff, the scientific programme and a list of participants.

More information about the SPARC program can be found at:  
<http://www.atmosp.physics.utoronto.ca/SPARC/index.html>

Please pass on this invitation to interested parties.

Because the rooms at the Banff Centre must be reserved well in advance, we need to get a reasonably accurate estimate of the expected number of participants. Furthermore, available space is limited. Therefore, if you intend to come **please respond by JANUARY 3, 2005** to [sparc@atmosp.physics.utoronto.ca](mailto:sparc@atmosp.physics.utoronto.ca). A final commitment will be required a few months before the workshop.

- I plan to attend the SPARC-DA3 workshop
- I would prefer to share a double room for \$139 CDN per day (including meals, taxes and gratuities)
- I would prefer a single room for \$203 CDN per day (including meals, taxes and gratuities)

Best wishes,

Saroja Polavarapu ([saroja.polavarapu@ec.gc.ca](mailto:saroja.polavarapu@ec.gc.ca))

Alan O'Neill ([alanbp@ntlworld.com](mailto:alanbp@ntlworld.com))

SPARC-DA Workshop Organizing Committee

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### **SPARC Workshop on Stratospheric Winds**

September 14-15, 2005

Banff, Canada

Information on stratospheric winds in meteorological analyses comes primarily from temperature information from nadir-viewing satellite instruments, which is of little use in the tropics. The quality of stratospheric winds in analyses is not really known, but transport schemes driven by analyzed winds in the stratosphere appear to be far too diffusive in the tropics and subtropics. This limits scientific understanding of such questions as the distribution of age of air in the lower stratosphere (and thus, for example, the impact of short-lived CFC replacements). There are several upcoming satellite missions that promise to change our knowledge of stratospheric winds. ADM will measure one component of tropospheric winds, and may have its upper altitude limit raised from 20 km to 30 km. The proposed SWIFT instrument would measure vector winds from 20-50 km. It is thus timely to assess the current state of knowledge of stratospheric winds, and the science questions that could be addressed with new observations.

This workshop (which will be held in conjunction with the SPARC Data Assimilation Workshop, with one day of overlap), will (i) assess the current state of knowledge of stratospheric winds; (ii) discuss the potential science questions that require better information concerning stratospheric winds; and (iii) estimate measurement requirements to address those science goals. The format will consist of oral (and possibly poster) presentations and structured discussion sessions. The specific program will be developed based on the expected participants.

There will be no registration fee. However, participants will pay a daily fee of \$203 CDN that covers accommodation, all meals, taxes and gratuities. There may be a small meeting fee to cover coffee breaks and, possibly, a banquet.

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Ted Shepherd, University of Toronto ([tgs@atmosp.physics.utoronto.ca](mailto:tgs@atmosp.physics.utoronto.ca))  
Convener