

SPARC Reanalysis Intercomparison Project (S-RIP) Workshop- and

SPARC Data Assimilation (DA) Workshop

October 12-16, 2015

Université Pierre et Marie Curie (UPMC)

Paris, France

S-RIP 2015 Workshop Monday, October 12, 2015

0830-0900 ***Arrival, Registration (and Co-Leads Meeting)***

0900-0915 Greetings and Introduction (Fujiwara, Legras)

Morning Session – Chair: Masatomo Fujiwara

0915-0945 Masatomo Fujiwara *S-RIP Overview / Chapter 1: Introduction* (*Rapporteur: Homeyer*)

0945-1015 Jonathon Wright *Chapter 2: Description of the Reanalysis Systems* (*Rapporteur: Santee*)

1015-1045 Craig Long *Chapter 3: Climatology and Interannual Variability of Dynamical Variables*
(*Rapporteur: Anstey*)

1045-1115 ***Break and Poster Viewing (with very short poster introduction by MF)***

1115-1145 Sean Davis *Chapter 4: Climatology and Interannual Variability of Ozone and Water Vapour*
(*Rapporteur: Sakazaki*)

1145-1330 ***Lunch***

Afternoon Session – Chair: Sean Davis

1330-1400 Masatomo Fujiwara *Discussion on the S-RIP 2015 Report* (*Rapporteur: Tegtmeier*)

1400-1450 Martineau *Chapter 6: Stratosphere–Troposphere Coupling* (*Rapporteur: Harvey*)

1450-1520 ***Break and Poster Viewing***

1520-1610 Monge-Sanz & Birner (remote) *Chapter 5: Brewer–Dobson Circulation* (*Rapporteurs: Wright*)

1610-1700 Fujiwara *General Discussion*

Adjourn for Monday

S-RIP 2015 Workshop
Tuesday, October 13, 2015

0830-0900 *Arrival, Registration (and Co-Leads Meeting)*

Morning Session – Chair: Craig Long

0900-0950 Homeyer *Chapter 7: Extratropical Upper Troposphere and Lower Stratosphere (Rapporteur: Long)*

0950-1040 Tegtmeier *Chapter 8: Tropical Tropopause Layer (Rapporteur: Davis)*

1040-1110 *Break and Poster Viewing*

1110-1200 Anstey & Gray *Chapter 9: Quasi-Biennial Oscillation and Tropical Variability (Rapporteur: Monge-Sanz)*

1200-1330 *Lunch*

Afternoon Session – Chair: Scott Osprey

1330-1420 Santee *Chapter 10: Polar Processes (Rapporteur: Martineau)*

1420-1510 Harvey *Chapter 11: Upper Stratosphere and Lower Mesosphere (Rapporteur: Sakazaki)*

1510-1540 *Break and Poster Viewing*

1540-1640 Rapporteurs *Review of Chapters 1-11*

1640-1800 Fujiwara *General Discussion*

1800 *Adjourn for Tuesday*

1930 *S-RIP Dinner meeting*
Address: Le Jardin d'Ivy
75 rue Mouffetard
75005 Paris
Tél : +33 01.47.07.19.29

S-RIP/SPARC-DA Joint Session
Wednesday October 14, 2015

0830-0900		<i>Arrival, Registration</i>
0900-0910	Bernard Legras	<i>Welcome, announcements, ...</i>
0910-0930	Quentin Errera, Masatomo Fujiwara	<i>Introduction to SPARC-DA and S-RIP, joint session, poster intro</i>
	Theme	<i>S-RIP/SPARC-DA joint session on reanalysis</i>
		Chair: B. Legras
0930-0950	Larry Coy	<i>NASA Activities Update</i>
0950-1010	Hans Hersbach	<i>ECMWF Activities Update</i>
1010-1030	Craig Long	<i>NOAA Activities Update</i>
1030-1115		<i>Break and poster viewing</i>
1115-1135	Chiaki Kobayashi	<i>JRA Activities Update</i>
1135-1200	Yayoi Harada	<i>Extraordinary features of the planetary wave propagation during the boreal winter 2013/2014 and the zonal wavenumber two predominance</i>
1200-1210		<i>Group Photo</i>
1210-1345		<i>Lunch</i>
		Chair: M. Fujiwara
1345-1430	Albert Hertzog (invited)	<i>Long-duration balloon experiments in the lower stratosphere and validation of the dynamics in ECMWF operational analyses</i>
1430-1455	Jingwei Liu	<i>Comparisons of China operational analysis data with two reanalysis datasets</i>
1520-1545	Siddarth S. Das	<i>A comparison of thermal structure between reanalysis and observation in the tropical atmosphere</i>
1545-1630		<i>Break and poster viewing</i>
1630-1655	Felix Ploeger	<i>Trends of stratospheric mean age of air, and the effects of residual circulation and mixing in ERA-Interim and JRA-55</i>
1655-1720	Bernard Legras	<i>Age of air in three reanalysis</i>
1720-1745	Luis Millan	<i>Dynamical Ozone Variability from Satellite Data and Reanalyses: Low Ozone Events and Stratospheric-Tropospheric Exchange</i>
1745		<i>Adjourn of Wednesday</i>

SPARC-DA Workshop
Thursday October 15, 2015

0830-0900

Arrival, Registration

Chair: R. Ménard

Theme

Harmonization of long term data record and bias correction in data assimilation

0900-0945

Hans Hersbach (invited)

Harmonization of long term data record and bias correction in data assimilation

0945-1015

Quentin Errera

Characterization of MIPAS CH₄ and N₂O and MLS N₂O using data assimilation

1015-1045

Break

1045-1130

Susann Tegtmeier (invited)

The SPARC Data Initiative

Theme

On the added value of chemical data assimilation of upper tropospheric and stratospheric measurements

1130-1215

Richard Ménard (invited)

The study group on the added-value of chemical data assimilation in the stratosphere and upper-troposphere

1215-1345

Lunch

Chair: Y. Orsolini

1345-1415

Frank Baier

Derivation of wind fields from stratospheric trace gas observations

Theme

Representation of the stratosphere-mesosphere in model and analysis

1415-1500

François Lott (invited)

Stochastic parameterization of gravity waves from convection and fronts: theory, validation, and impacts on the middle atmosphere climate

1500-1545

Scott Osprey (invited)

Representation of the stratosphere-mesosphere in models and Analyses

1545

Adjourn of Thursday

1930

SPARC-DA Dinner meeting

Address: Au Port du Salut

163 Rue Saint-Jacques

75005 Paris, France

Tél. :+33 01 46 33 63 21

SPARC-DA Workshop
Friday October 16, 2015

0830-0900

Theme

Arrival, Registration

Representation of the stratosphere-mesosphere in model and analysis (cont.)

Chair: S. Tegtmeier

0900-0930

Krzysztof Wargan

Strengthening of the tropopause inversion layer during the 2009 sudden stratospheric warming in the MERRA-2 analysis

0930-1000

Yvan Orsolini

Mesosphere-Stratosphere Coupling during Stratospheric Sudden Warmings

1000-1030

Valery Yudin

Data analysis in the whole atmosphere models

1030-1100

Break

1130-1200

Sergey Skachko

Ozone deficit in the BASCOE CTM

1100-1130

Johannes Flemming

Stratospheric ozone-temperature radiative feedback in the Integrated Forecasting System (IFS) of ECMWF

1200-1230

Quentin Errera

Discussion on future directions of SPARC DAWG, next year's workshop, etc.

1230

Adjourn of workshop

Poster Presentations

Poster size: A0 portrait

Marta Abalos	<i>Interannual variability of effective diffusivity in ERA-Interim (1980-2012)</i>
Marta Abalos	<i>Evaluating the advective Brewer-Dobson circulation in three reanalyses for the period 1979-2012</i>
Yoshio Kawatani	<i>Comparison of zonal wind in the equatorial stratosphere among several reanalysis data</i>
Chiaki Kobayashi	<i>Comparison of the stratospheric and tropospheric circulations among the JRA-55 family members</i>
Paul Konopka	<i>How robust are stratospheric H₂O trends derived from different re-analysis products?</i>
Patrick Martineau	<i>Dynamical consistency of reanalysis data sets in the extratropical stratosphere</i>
Aurélien Podglajen	<i>Comparison of vertical velocities in the lower stratosphere between different reanalyses and long-duration stratospheric balloon observations</i>
Takatoshi Sakazaki	<i>Diurnal tides in reanalysis data sets</i>
Xiaoyi Sun	<i>A Preliminary Intercomparison of Reanalysis Cloud Variables in the Tropical Upper Troposphere and Tropopause Layer</i>
Krzysztof Wargan	<i>Validation of the MERRA-2 ozone product</i>
Jonathon Wright	<i>Effects of Madden–Julian Oscillation Propagation Characteristics on Stratospheric Water Vapor Entry Mixing Ratio</i>
Peter Hitchcock	<i>Evaluating pre-1979 polar-cap variability</i>
Ann'Sophie Tissier	<i>Transport across the tropical tropopause layer and convection</i>

List of participants

Anstey	James	Oxford University	UK
Baier	Frank	DLR	Germany
Coy	Lawrence	NASA GFSC	USA
	Siddarth		
Das	Shankar	Indian Space Research Organisation	India
Davis	Sean	NOAA ESRL	USA
Errera	Quentin	BIRA-IASB	Belgium
Flemming	Johannes	ECMWF	UK
Fujiwara	Masatomo	Hokkaido University	Japan
Harada	Yayoi	Meteorological Research Institute	Japan
Harvey	Lynn	Colorado University	USA
Hersbach	Hans	ECMWF	UK
Hertzog	Albert	LMD	France
Hitchcock	Peter	Cambridge University	UK
Homeyer	Cameron	Oklahoma University	USA
Kawatani	Yoshio	JAMSTEC	Japan
Kobayashi	Chiaki	Meteorological Research Institute	Japan
Legras	Bernard	LMD	France
Liu	Jingwei	CMA	China
Long	Craig	NOAA NCEP	USA
Lott	Francois	LMD	France
Martineau	Patrick	McGill University	Canada
Ménard	Richard	Environement Canada	Canada
Millan	Luis	JPL	USA
Monge-Sanz	Beatriz	ECMWF	UK
Orsolini	Yvan	NILU	Norway
Osprey	Scott	Oxford University	UK
Ploeger	Felix	FZ-Jülich	Germany
Podglajen	Aurélien	LMD	France
Sakazaki	Takatoshi	Kyoto University	Japan
Santee	Michelle	JPL	USA
Skachko	Sergey	BIRA-IASB	Belgium
Sun	Xiaoyi	Tsinghua University	China
Tegtmeier	Susann	GEOMAR	Germany
Tissier	Ann'Sophie	LMD	France
Wargan	Krzysztof	NASA GFSC	USA
Wright	Jonathon	Tsinghua University	China
Yudin	Valery	NOAA SWPC	USA

Map and direction

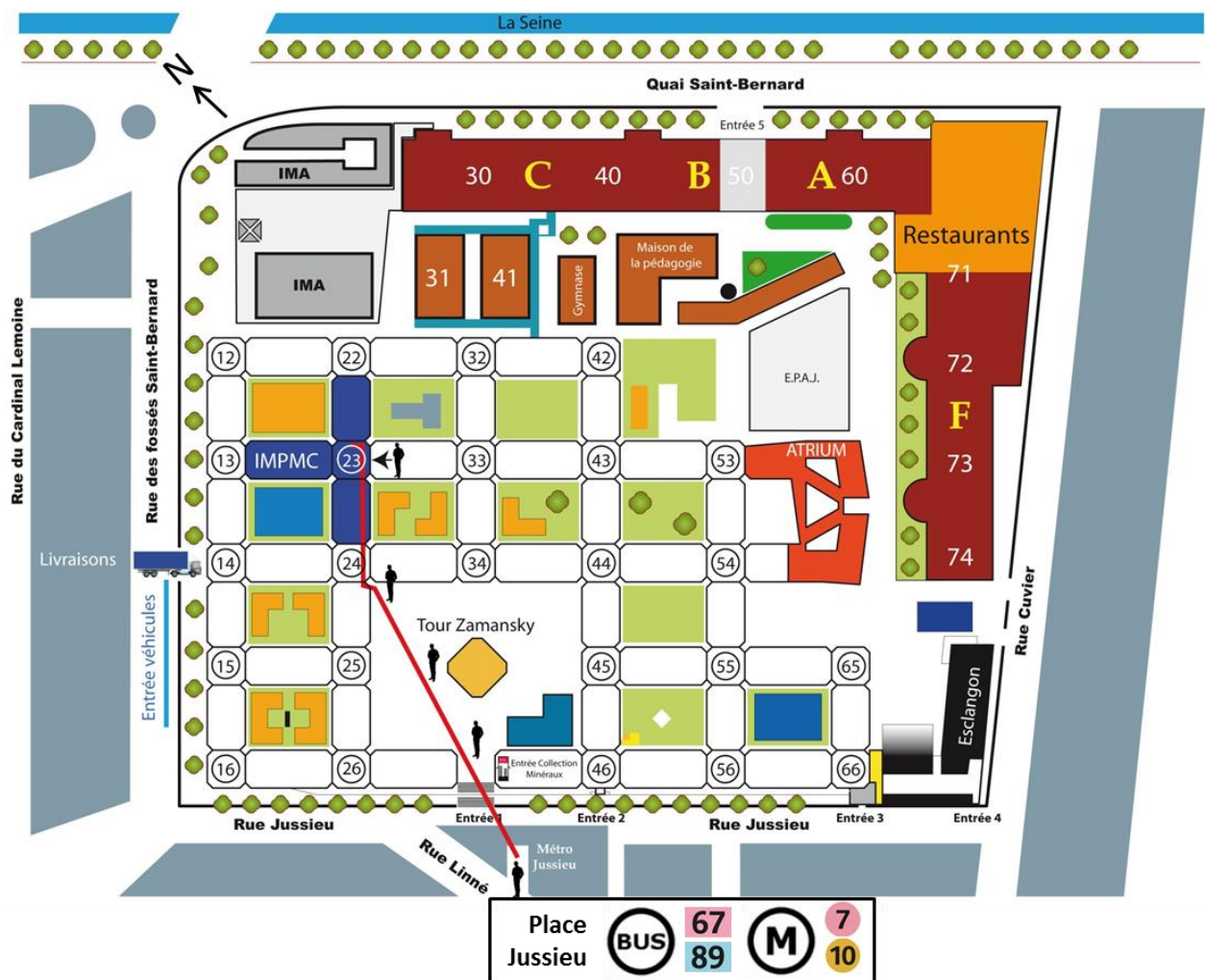
The meeting will take place at the University Pierre and Marie Curie, at the Jussieu Campus, 4 place Jussieu 75252 Paris, in the IMPMC lab (Institut de minéralogie, de physique des matériaux et de cosmochimie), on the **4th floor of the tower 22-23 (access via tower 23)** .

Bus line 67 and 89, bus stop ‘Institut du Monde Arabe’ (IMA on the upper left of the map) or ‘Place Jussieu’

Subway line 7 and 10, station ‘Jussieu’

For those that have a smart phone, the application ‘RATP’ provides useful information about bus and subway.

Note also that there might be some security check at the entrance of the university, especially for people entering with a luggage.



Here are a few transport tips.

From CDG:

The recommended way is to use the RER train to Paris, then to change to subway line 10 at St Michel. During rush hours, try to take the trains which does not stop between CDG and Gare du Nord to avoid being jammed among commuters. Cost of a ticket: 10€.

Taxi is 55-70€.

There are also some Air France buses to Gare de Lyon.

From Orly airport:

It is again possible to take the RER train, northbound and change to line 10 at St Michel. The RER station is connected to Orly by the VAL automatic subway. You buy a combined ticket at the airport (9€ or so).

Another good choice, and the cheapest one, it to take the RATP shuttle to the head of subway line 7 which goes directly to Jussieu.

Taxi is around 40€.

There are also Air France buses to Montparnasse and Invalides and a RATP Roissy-Bus to Denfert-Rochereau.

To move by subway or bus in Paris, it is cheaper to buy tickets by 10, saving 22%. There are also various turistic offers. Informations are available at http://www.ratp.fr/en/ratp/c_21879/visiting-paris/ including a handy phone appli with off-line maps of subway and buses.

For the more courageous, you will find velib bikes almost everywhere. They can be used with a daily or a weekly ticket that you can buy at each station or on line. You can make as many rides you like of less than 1/2h each during the validity of the ticket. You have to pay additional fees if you keep the bike for more than 1/2h. So this is meant for point to point transport, not to keep a bike a whole day. There are so many stations, however, that it is very convenient. <http://en.velib.paris.fr>

Workshop fee

A fee of €10/day will be asked to cover the coffee breaks and the organization. This fee will be collected at the meeting on Monday and Wednesday mornings and must be paid by cash. In order to prepare the receipt in advance, please fill the doodle (<http://doodle.com/poll/hgyemrsp2zuxeqyc>) to tell us the days when you will be present. Note that participants that received travel support do not need to pay the workshop fee but still must fill the doodle (and must pay for the dinner(s) if you participate).