

Workshop on:

"Observations and modeling of aerosol and clouds properties for climate studies "

Organized by LOA (Laboratoire d'Optique Atmosphérique), **Universite de Lille**

LOA: O. Dubovik, P. Goloub, Y. Derimian and F. Parol

Paris, 12-14 September, 2011

Organizing committee:

O. Dubovik, P. Goloub, Y. Derimian, F. Parol, F.-M. Bréon, D. Renaut, J-M. Flaud

Objectives:

The workshop is designed to provide a forum where achievements, challenges and perspectives of characterizing aerosol and cloud properties and their impact on climate are presented. It will include coordination between the international space-based observation of the atmosphere activities and evaluation of satellite products with the help of modelers, ground-based remote sensing and *in situ* measurement scientists. The advances and challenges of accessing aerosol and cloud effects on climate dynamics will be discussed. It is organized to gather the scientists already involved in decades of collaboration to discuss the community accomplishments and outline the most appealing dynamics for near future remote sensing activities.

The participation in the workshop is by invitation only with the total number of participant limited to ~ 100 people. Each participant or scientific team is expected to give 12+3 min presentation. The meeting of scientifically focused group of experts is planned to promote in depth discussions.

Projected sessions:

1. Achievements in characterization of aerosols, clouds and the earth's surface
2. Inversions, new ideas and algorithms to derive detailed aerosol and cloud properties: cloud and aerosol passive and active remote sensing, characterization from satellite, ground-based, airborne and *in situ*.
3. Modeling of aerosols, clouds and their climate effects
4. Future satellite missions

Social Event:

Dinner: D. Tanré 60-th anniversary celebration

Scientific program

Monday, September 12, 2011

09:30 - 9:55	Registration / Welcome	
	Speaker	Presentation Title
Chairman : Parol Frederic		
9:55 - 10:00	Dubovik Oleg	Opening
10:00 - 10:10	Flaud Jean-Marie	Welcome
10:10 - 10:40	Hansen James E.	Aerosols and Clouds as Forcings and Feedbacks in Global Climate Change
Session 1-1 : Achievements in characterization of aerosols, clouds and the earth's surface		
10:40 - 10:55	Holben Brent	AERONET's way forward: DRAGONs Discover new Directions, tracking version 3
10:55 - 11:10	Remer Lorraine	The MODIS aerosol algorithms: Past, present, future
11:10 - 11:25	King Michael	Advances in the remote sensing of cloud optical properties
11:25 - 11:40	Nakajima Teruyuki	A history of aerosol direct and indirect effect studies from observation and modeling
11:40 - 11:55	Vermote Eric	Generation of time series of directionally normalized spectral surface reflectance from MODIS: Method, Accuracies and Applications
11:55 - 12:10	Breon Francois-Marie	Is there a local maximum at backscatter for the scattering phase function of aerosols?
Lunch 12:10 - 14:00		
Session 1-2 : Achievements ...		
Chairman : Nakajima Teruyuki		
14:00 - 14:15	Winker Dave	Constructing the 3D distribution of the global aerosol
14:15 - 14:30	Koren Ilan	ON CLOUDS, RABBITS AND FOXES- a systems approach to clouds, rain and aerosols
14:30 - 14:45	Dulac Francois	A look at the Mediterranean aerosol back to 1983 through Meteosat series
14:45 - 15:00	Loeb Norman	Recent Variations in Earth's Radiation Budget, Clouds and Aerosols
15:00 - 15:15	Hu Yong	A Climate Sensitivity Study Using CALIPSO/CloudSat Observations
15:15 - 15:30	Morcrette Jean-Jacques	The MACC/ECMWF aerosol analysis and forecast system: Recent results
15:30 - 15:45	Tanre Didier	Aerosol properties retrieved from space observations
Café Break 15:45 - 16:15		
Session 2-1 : Inversions, new ideas and algorithms to derive detailed aerosol and cloud properties (clouds)		
Chairman : King Michael		
16:15 - 16:30	Platnick Steven	Climate Data Records: A MODIS Atmosphere Perspective
16:30 - 16:45	Delanoe Julien	Radar-lidar synergy for cloud studies
16:45 - 17:00	Wehr Tobias	The EarthCARE Satellite Mission - Linking clouds, aerosols and radiation (<i>belong Future missions section</i>)
17:00 - 17:15	Kokhanovsky A., Rozanov V.V.	Droplet vertical sizing in water clouds using passive satellite measurements
17:15 - 17:30	Marshak Alexander	Aerosol properties near clouds from MODIS and CALIOP
17:30 - 17:45	Stammes Piet	Aerosol and cloud properties retrieved from UV-visible spectrometers GOME, SCIAMACHY and OMI
17:45 - 18:00	Ferlay Nicolas	New inferences about Cloud Structures from PARASOL measurements in the Oxygen A Band: altitudes and vertical extensions of cloud layers

Tuesday, September 13, 2011

	Speaker	Presentation Title
Session 2-2 : Inversions, new ideas and algorithms ... (aerosol, satellites/passive)		
Chairman: Breon Francois-Marie		
8:45 – 9:00	Russell Philip	Identifying Aerosol Type from Space: Absorption Wavelength Dependence as a Foundation for Multidimensional Supervised Clustering and Mahalanobis Classification
9:00 – 9:15	Mishchenko Michael	Radiative transfer: should we care about fundamentals?
9:15 – 9:30	de Leeuw Gerrit	Retrieval of Aerosol Properties over Land using AATSR data
9:30 – 9:45	Kahn Ralph	What We've Learned from ~12 Years of MISR Aerosol Observations
9:45– 10:00	Holzer-Popp Thomas	Comparing algorithm versions in aerosol_cci – what can we learn about aerosol properties?
10:00 – 10:15	Dubovik Oleg	The optimized algorithm for deriving detailed properties of aerosol from satellite observations.
10:15 – 10:30	Chin Mian	Multidecadal trends of aerosols: sources, transport, and impact (<i>belong Modeling section</i>)
Café Break 10:30 – 11:00		
Session 2-3 : Inversions, new ideas and algorithms ... (aerosol, satellites/passive)		
Chairman: Remer Lorraine		
11:00 – 11:15	Diner J. David	Progress on developments from MISR to MSPI
11:15 – 11:30	Ichoku M. Charles	Toward a coherent detailed evaluation of aerosol data products from multiple satellite sensors
11:30 – 11:45	Redemann Jens	Multi-satellite-sensor studies of direct aerosol radiative effects supplemented by suborbital observations
11:45 – 12:00	Kalashnikova Olga	MISR decadal observations of mineral dust: optical modeling, property characterization, and climate applications
12:00 – 12:15	Lyapustin Alexei	Current status of Multi-Angle Implementation of Atmospheric Correction Algorithm (MAIAC)
12:15 – 12:30	Levy Robert	Impact of reflectance calibration on the long-term Terra and Aqua MODIS aerosol products
12:30 – 12:45	Govaerts Yves	Joint retrieval of Aerosol Properties and Surface Reflectance from Meteosat First, Second and Third Generation Observations with an Optimal Estimation Method
Lunch 12:45 – 14:15		
Session 2-4 : Inversions, new ideas and algorithms ... (aerosol, active - lidars)		
Chairman: Hu Yong		
14:15 – 14:30	Trepte Charles	The Dispersal of Smoke in the UTLS Region Following the Australian PyroCB Event of February 2009 as Observed by CALIPSO
14:30 – 14:45	Ferrare Richard	Aerosol Characterization using Airborne HSRL Measurements
14:45 – 15:00	Chaikovsky Anatoli	Lidar/Sun-radiometer Remote Sensing Technique for Studying Long Range Volcano Ash Transport
15:00 – 15:15	Ansmann Albert	Combined use of polarization lidar and Sun photometer: Key to separate optical and microphysical properties of non-spherical (coarse-mode) and spherical (fine-mode) particles
15:15 – 15:30	Veselovsky Igor	Retrieval of time-sequences of particle physical parameters from multiwavelength lidar measurements
15:30 – 15:45	Pelon Jacques	Characterization of volcanic aerosol plumes using CALIPSO observations
15:45 – 16:00	Goloub Philippe	Development of a real time Cimel sunphotometer/lidar inversion system for aerosol monitoring

Café Break 16:00 – 16:30

Session 2-5 : Inversions, new ideas and algorithms ... (aerosol, ground-based, airborne)

Chairman: Holben Brent

16:30 – 16:45	Alfaro Stephane	The aerosol in Cairo (Egypt) as derived from AERONET observations
16:45 – 17:00	Smirnov Alexander	Maritime Aerosol Network as a component of AERONET
17:00 – 17:15	Martins Vanderlei	Measurements of aerosol and cloud particles from in situ polarized nephelometers to remote sensing with the PACS/HARP system
17:15 – 17:30	Schuster Gregory	Remote Sensing of Aerosol Composition
17:30 – 17:45	Gatebe Charles	New insights on smoky clouds from Airborne Measurements
17:45 – 18:00	Mallet Marc	Aerosol Direct Radiative Impact on the regional climate in the MEDiterranean region : the ADRIMED project
19:30 –	Dinner: D. Tanré 60-th anniversary celebration	

Wednesday, September 14, 2011

	Speaker	Presentation Title
Session 2-6: Inversions, new ideas and algorithms ... (aerosol, ground-based, airborne)		
Chairman: Goloub Philippe		
8:45 – 9:00	Eck Tom	Fog and Cloud Induced Aerosol Modification Observed by AERONET
9:00 – 9:15	Li Zhengqiang	Retrieval of aerosol microphysical and chemical properties in heavy haze days in north China
9:15– 9:30	Torres Benjamín	Pointing errors in sky radiance measurements from sunphotometers. Influence on inversion-retrieved aerosol properties.
9:30 – 9:45	Shcherbakov Valery	In situ observations and retrieval results of an A380 contrail: a case study
9:45– 10:00	Legrand Michel	Radiative properties of Saharan dust in the thermal infrared derived from AMMA campaign
10:00 – 10:15	Herbin Herve	Aerosols and gases parameters retrieval from high resolution infrared instruments
Café Break 10:15 – 10:45		
Session 3 : Modeling of aerosols, clouds and their climate effects		
Chairman : Bergametti Gilles		
10:45 – 11:00	Ginoux Paul	Global dust sources from MODIS DB dust optical depth
11:00 – 11:15	Boucher Olivier	What do precipitation forecasts tell us about the second aerosol indirect effect?
11:15 – 11:30	Martcorena Beatrice	Regional and temporal variability of mineral dust concentration over West Africa monitored by the AMMA Sahelian Dust Transect and simulated with CHIMERE-Dust
11:30 – 11:45	Dasilva Arlindo	Assimilation of Cloud and Aerosol Observations in GEOS-5
11:45 – 12:00	Kinne Stefan	A new aerosol climatology for global modeling and applications
12:00 – 12:15	Liousse Catherine	Modelling African Anthropogenic Aerosols and their impacts using regional fossil fuel and biofuel emission inventories for 2005 and 2030
Lunch 12:15 – 14:00		
Session 4 : Future missions		
Chairman: Tanre Didier		
14:00 – 14:15	Maring Hal	Current and Future NASA Earth Observing Satellites
14:15 – 14:30	Sano Itaru, Sonoyo Mukai	Algorithms for aerosol retrieval based on radiance and polarization with GCOM/SGLI
14:30 – 14:45	Gu Xingfa	Future missions in china. CHEOS.
14:45 – 15:00	Jerome Riedi	3MI/ Post-EPS
15:00 – 15:15	Renaut Didier	Overview of CNES satellite activities (<i>to be confirmed</i>)

Location:

Université Paris 6 or Université Pierre et Marie Curie
(Station Metro Jussieu)
Esclangon Building, Amphithéâtre Durand
Paris, France

[Click here to see the map of campus area](#)

The plan of access:



How to get there :

The Workshop location (Esclangon Building) is **in front of station Metro Jussieu**.

The best way is to use the subway or buses. Information is available at : <http://www.ratp.fr/>

Note that you can get a free very good map of Paris by asking for a «grand plan de Paris» at any subway station.

If you stay in Paris a week, you can buy weekly passes (carte orange hebdomadaire) valid from Monday morning to Sunday evening. You can buy them in any subway station. In that case, do not forget to bring an ID picture with you. Look at the information on the web <http://www.ratp.fr/>

List of attendees :

Alfaro Stephane	Dulac Francois	Koren Ilan	Podvin Thierry
Ansmann Albert	Eck Tom	Labonnote Laurent	Redemann Jens
Baretto Africa	Elias Thierry	Lapyonok Tatyana	Remer Lorraine
Bergametti Gilles	Faucher Thomas	Legrand Michel	Renaut Didier
Blarel Luc	Fedorenko Anton	Lenoble Jacqueline	Riedi Jerome
Boucher Olivier	Ferlay Nicolas	Levy Robert	Russell Philip
Breon Francois-Marie	Ferrare Richard	Li Zhengqiang	Sano Itaru
Buis Jean-Pierre	Flaud Jean-Marie	Lifermann Anne	Sauvage Béatrice
Cachorro Victoria	Gatebe Charles K.	Liousse Catherine	Schuster Gregory
Canini Marius	Ginoux Paul	Litvinov Pavel	Seze Genevieve
Casse Vincent	Goloub Philippe	Loeb Norman	Shcherbakov Valery
Chaikovsky Anatoli	Govaerts Yves	Lopatin Anton	Smirnov Alexander
Chatenet Bernadette	Gu Xingfa	Lyapustin Alexei	Sourdeval Odran
Chen Hao	Hansen James E.	Mallet Marc	Stammes Piet
Cheng Tianhai	Herbin Herve	Maring Hal	Stubenrauch Claudia
Chiapello Isabelle	Herman Maurice	Marshak Alexander	Szczap Frederic
Chin Mian	Holben Brent	Martcorena Beatrice	Tanre Didier
Cluset Emmanuelle	Holdak Andriy	Martins Vanderlei	Thieuleux Francois
Cornet Céline	Holzer-Popp Thomas	Mattoo Shana	Toledano Carlos
Crozal Didier	Hostetler Chris	Matusiak Stanislaw	Torres Benjamín
Dasilva Arlindo	Hu Yong	Mishchenko Michael	Trepte Charles
de Leeuw Gerrit	Ichoku M. Charles	Morcrette Jean-Jacques	Tsamalis Christoforos
Delanoé Julien	Jankowiak Isabelle	Mortier Augustin	Vermeulen Anne
Derimian Yevgeny	Jourdan Olivier	Mukai Sonoyo	Vermote Eric
Descloitres Jacques	Kahn Ralph	Nakajima Teruyuki	Veselovsky Igor
Desmons Marine	Kalashnikova Olga	Ovigneur Bertrand	Victori Stéphane
Deuzé Jean-Luc	Karol Yana	Papineau Nicole	Waquet Fabien
Diner J. David	King Michael	Parol Frédéric	Wehr Tobias
Dubovik Oleg	Kinne Stefan	Pelon Jacques	Winker Dave
Dubuisson Philippe	Kleidman Rich	Phulpin Thierry	
Ducos Fabrice	Kokhanovsky Alexander	Platnick Steven	

Environmental friendly transportation: One may rent bicycle for ~1 Euro per day:
<http://en.velib.paris.fr/>

HOTEL INFORMATION

In addition to a list of nearby hotels provided below, you may also check the next web sites:

<http://www.france-hotel-guide.com>

<http://www.cybevasion.fr>

<http://www.pariserve.tm.fr>

<http://www.booking.com/>

LIST OF NEARBY HOTELS #1

Hotel Saint-Christophe (60 rooms) tel: 01 43 31 81 54 fax: 01 43 31 12 54 17, rue Lacépède 75005 http://www.charm-hotel-paris.com/	Hotel Minerve (60 rooms) tel: 01 43 26 26 04 tel: 01 43 26 81 89 fax: 01 44 07 01 96 13 rue des Ecoles 75005
Timhotel Jardin des Plantes (33 rooms) tel: 01 47 07 06 20 fax: 01 47 07 62 74 5 rue Linne 75005 http://www.timhotel.com/hotels/vf/jardin.html	Au Royal Cardinal Hotel (36 rooms) tel: 01 43 26 83 64 tel: 01 46 33 93 62 fax: 01 44 07 22 32 1 rue des Ecoles 75005
Timhotel Quartier Latin (33 rooms) tel: 01 43 31 25 64 fax: 01 43 31 11 46 71 rue Monge 75005 http://www.timhotel.com/hotels/vf/lutec.html	Hotel des Grandes Ecoles (51 rooms) tel: 01 43 26 79 23 Fax: 01 43 25 28 15 75 rue du Cardinal Lemoine 75005
Hotel des Nations St Germain (38 rooms) tel: 01 43 26 45 24 54 rue Monge 75005	Abbatial Saint Germain Hotel (43 rooms) tel: 01 46 34 02 12 46 bd Saint Germain 75005
Grand Hotel Moderne (45 rooms) tel: 01 43 54 37 78 33 rue des Ecoles 75005	Hotel des Arenes (52 rooms) tel: 01 43 25 09 26 tel: 01 43 25 87 17 fax: 01 43 25 79 56 51 rue Monge 75005
Hotel Saint Jacques (35 rooms) tel: 01 44 07 45 45 35 rue des Ecoles 75005	Hotel Claude Bernard (35 rooms) tel: 01 43 26 32 52 fax: 01 43 26 80 56 43 rue des Ecoles 75005
Hotel Familia (30 rooms) tel: 01 43 54 55 27 fax: 01 43 29 61 77 11 rue des Ecoles 75005	Agora Saint Germain Hotel (39) tel: 01 46 34 13 00 42 rue des Bernardins 75005

LIST OF NEARBY HOTELS #2

[Hôtel des Grandes Ecoles***](#)(approx. 5 minutes) Nice and very quiet Hotel, rooms are around a courtyard, without TV in the room but with internet access.75, rue du Cardinal Lemoine ; Paris 5èmeTél. 01 43 26 79 23 ; Fax. 01 43 25 28 15Prices: 110 to 135 Euros + breakfast 8 Euros

[Hôtel des Arènes***](#)(approx. 5 minutes)51, rue Monge - 75005 ParisPrices: 90 to 110 Euros + breakfast 10 Euros

[Hôtel des Nations Saint-germain***](#)(approx. 5 minutes)54, rue Monge - 75005 ParisPrices: 100 to 120 Euros + breakfast 12 Euros

[Hotel De Notre Dame***](#)(approx. 10 minutes from Jussieu, 5 minutes from Notre-Dame)19, rue Maître Albert 75005 Paris Prices: 165 Euros + breakfast 7 Euros

[Hôtel Abbatial Saint-Germain***](#)(approx. 10 minutes from Jussieu, 5 minutes from Notre-Dame)46 boulevard Saint-Germain - 75005 Paris Prices: 150-160 Euros + breakfast 12 Euros

[Hôtel Résidence Henri IV***](#)(approx. 10 minutes from Jussieu, 5 minutes from Notre-Dame) 50, rue des Bernardins 75005 Paris Prices: 85-185 Euros + breakfast 6 Euros

[Hotel Best Western Quartier Latin Panthéon ***](#)(approx. 5 minutes)71, rue Monge - 75005 ParisPrices: 95 to 135 Euros + breakfast 13 Euros

[Comfort Inn Mouffetard -Quartier Latin***](#)(approx. 10 minutes)56, rue Mouffetard, Paris, 75005 tel. 01 43 36 17 00 ; fax : 01 43 36 25 78 Prices: 140 Euros + breakfast 10 Euros

[Résidence Monge**](#)(approx. 5 minutes)55, rue Monge; 75005 ParisTél. 01 43 26 87 90; Fax. 01 43 54 47 25Prices: 80 to 130 Euros + breakfast 6,5 Euros

[Hôtel de France**](#)(approx. 10 minutes)108, rue Monge ; 75005 PARIS Tel. 01 47 07 19 04 ;Fax : 01 43 36 62 34 Prices: 85 to 105 Euros + breakfast 7 Euros

[Hotel Cujas Panthéon **](#)(approx. 10 minutes)18 rue Cujas, 75005 Paris tel: 01 43 54 58 10 ; fax : 01 43 25 88 02 Prices: 85 to 95 Euros + breakfast 7 Euros