

V Workshop on Lidar Measurements in Latin America
Buenos Aires, Argentina (Nov 30 – Dec 3, 2009)



Posters Session

Monday - November 30th (17:00)

Session: Networks and Institutes

1- *Quality assurance at the EARLINET Granada Station: characterization of the optical subsystem for a multichannel Raman lidar.*

J. Guerrero-Rascado^{1,2}, F. Navas-Guzmán^{1,2}, J. Díaz³, J. Bravo-Aranda^{1,2} and L. Alados-Arboledas^{1,2}

¹Departamento de Física Aplicada, Universidad de Granada, Granada, 18071, Spain. ²Centro Andaluz de Medio Ambiente, Junta de Andalucía, Universidad de Granada, Granada, 18071, Spain.

³Departamento de Óptica, Universidad de Granada, Granada, 18071, Spain.

2- *Status of the lidar station at La Paz – Bolivia.*

R. Forno, F. Zaratti and F. Calderon

Atmospheric Physics Laboratory, Institute of Physical Research, University of San Andrés, La Paz, Bolivia.

3- *First lidar observatory in Colombia.*

A. Bastidas and D. Nisperuza

Grupo de Láseres y Espectroscopia Óptica. Escuela de Física, Universidad Nacional de Colombia, Medellín, Antioquia.

4- *Estimation of the microphysical aerosol properties over Thessaloniki, Greece, during the SCOUT-O3 campaign with the synergy of Raman lidar and sunphotometer.*

E. Giannakaki¹, D. Muller², D. Balis¹ and V. Amiridis²

¹Laboratory of Atmospheric Physics, Aristotle University of Thessaloniki, 54124, Greece. ²Leibniz Institute for Tropospheric Research, Leipzig, Germany. ³Institute for Space Applications and Remote Sensing, National Observatory of Athens, I. Metaxa & V. Pavlou, 15236, Penteli, Athens, Greece.

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5- *Aerosol absorption measurements at the ALOMAR subarctic station.*

E. Montilla – Rocero¹, E. Rodríguez², S. Mogo³, V. Cachorro¹, R. Rodrigo¹ and Á. de Frutos¹

¹Atmospheric Optics Group, University of Valladolid, Valladolid, Spain. ²Finnish Meteorological Institute, Helsinki, Finland. ³Department of Physics, University of Beira, Covilhã, Portugal.

6- *Dust intrusion observations by lidar: from the subtropical Santa Cruz de Tenerife station (Canary Islands) to 'El Arenosillo' station (southwest of Iberian Peninsula).*

C. Cordoba-Jabonero^{1,2}, J. Andrey¹, M. Sorribas³, J. Adame³, Y. Hernandez⁴, V. Cachorro⁵, M. Gil¹, E. Cuevas⁴ and B. de la Morena³

¹Instituto Nacional de Técnica Aeroespacial (INTA), Atmospheric Research and Instrumentation Branch, Torrejon de Ardoz-Madrid, Spain. ²Universidad de Granada (UGR), Group of Atmospheric Physics, Granada, Spain. ³Estacion de Sondeos Atmosfericos 'El Arenosillo' (ESAt), Atmospheric Research and Instrumentation Branch (INTA), Mazagon (Huelva), Spain. ⁴Agencia Estatal de Meteorologia (AEMET), Atmospheric Research Centre of Izaña, Sta. Cruz de Tenerife, Spain. ⁵Universidad de Valladolid (UVA), Group of Atmospheric Optics, Valladolid, Spain.

Tuesday - December 1st (17:00)

Session: Middle Atmosphere

1- *A comparison between mesospheric temperature measured by lidar and SKIYMET meteor radar during 2007 and 2008 at Brazilian low latitude.*

V. Andrioli, B. Clemesha; P. Batista; F. Fernandes; D. Simonich

National Institute for Space Research – INPE, São José dos Campos, SP, Brazil.

2- *Estimation of OH height profile obtained by fit of simultaneous data from lidar and airglow in the Brazilian low latitude sector.*

F. Fernandes¹, D. Simonich¹, A. Pimenta¹, D. Gobbi¹ and B. Clemesha¹

Instituto Nacional de Pesquisas Espaciais (INPE), Brazil.

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Session: Instruments and Methods

1- *Radiation effects on the most commonly used Non linear Optical Crystals for Space borne LIDAR's.*

H. Schroder, W. Riede and G. Tzeremes

European Space Agency (ESA), E.U.

2- *Retrieval of the lidar overlap function using Raman signals.*

F. Navas-Guzmán^{1,2}, J. L. Guerrero Rascado^{1,2} and L. Alados-Arboledas^{1,2}

¹Departamento de Física Aplicada, Universidad de Granada, Granada, Spain; ²Centro Andaluz de Medio Ambiente, Junta de Andalucía, Universidad de Granada, Granada, Spain.

3- *On the use cirrus clouds for elastic lidar calibration.*

F. Navas-Guzmán^{1,2}, J. L. Guerrero-Rascado^{1,2}, J. A. Bravo-Aranda^{1,2} and L. Alados-Arboledas^{1,2}

¹Departamento de Física Aplicada, Universidad de Granada, Granada, Spain; ²Centro Andaluz de Medio Ambiente, Junta de Andalucía, Universidad de Granada, Granada, Spain.

4- *Retrieval of particle microphysical parameters from multiwavelength Raman lidar measurements.*

I. Veselovskii

Physics Instrumentation Center, Russia.

5- *Contrast between small footprint Lidar and field estimates of canopy height in a Tropical rainforest.*

C. Soto and E. Lobo

Organización Para Estudios Tropicales, Costa Rica.

6- *CEILAP multiwavelength scanning lidar construction for long range atmospheric transmission measurements.*

J. Pallotta¹, P. Ristori¹, L. Otero¹, F. Gonzalez¹, O. Vilar¹, R. D'Elía¹, E. Wolfram¹, E. Pawelko¹, M. Proyetti¹, A. Etchegoyen² and E. Quel¹.

¹ CEILAP (CITEFA-CONICET), Villa Martelli, Argentina; ²Departamento de Física (Tandar), Centro Atómico Constituyentes, CNEA, Argentina.

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7- Denoising of the Lidar signals using wavelet transform. Preliminary experiences in the CEILAP, Argentina.

E. Pawelko¹, J. Pallotta¹, P. Ristori¹, M. Raponi¹, L. Otero¹, E. Wolfram¹, R. D'Elia² and E. Quel¹.

¹CEILAP (CITEFA-CONICET), Villa Martelli, Argentina. ²CONICET.

8- Remote sensing of stratospheric NO₂, using a mini spectrometer and the DOAS technique.

M. Raponi¹, E. Wolfram¹, R. Jiménez², J. Tocho³, E. Quel¹

¹CEILAP (CITEFA-CONICET), Villa Martelli, Argentina. ²Universidad Nacional de Colombia. ³Centro de Investigaciones Ópticas, CIOp (CONICET-CIC), Buenos Aires, Argentina.

9- Water Vapor Raman Lidar for Meteorology.

T. Dinoev¹, V. Simeonov¹, B. Calpini², I. Serikov¹, Y. Arshinov³, S. Bobrovnikov³, **P. Ristori**⁴, H. van den Bergh¹, and M. B. Parlange¹

¹EPFL - School of Architecture, Civil, and Environmental Engineering - EFLUM (LPAS), Switzerland; ²MeteoSuisse, Aerological Station Payerne, Suisse ; ³Institute of Atmospheric Optics (IAO), Tomsk, Russia; ⁴CEILAP (CITEFA-CONICET), Villa Martelli, Argentina.

10- High resolution scanning Raman lidar validation field campaign and internal boundary layer measurement.

M. Froidevaux¹, C. Higgins¹, V. Simeonov¹, **P. Ristori**², I. Serikov¹, H. Van den Bergh and¹, M.B. Parlange¹

¹Laboratory of Environmental Fluid Mechanics and Hydrology School of Architecture, Civil, and Environmental Engineering Swiss Federal Institute of Technology, Lausanne, Switzerland;

²CEILAP (CITEFA-CONICET), Villa Martelli, Argentina.

11- Development of an O₂ UV DIAL System at the High Altitude Research Station Jungfrauoch.

M. Bartlome, V. Simeonov and M. Parlange

Laboratory of Environmental Fluid Mechanics and Hydrology School of Architecture, Civil, and Environmental Engineering Swiss Federal Institute of Technology, Lausanne, Switzerland.

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12- mESYLIDAR: a new cost-effective powerful lidar configuration for tropospheric aerosols and clouds investigations.

M. Cazacu^{1,3}, **P. Ristori**⁶, O. Tudose¹, A. Balanici¹, D. Nicolae⁴, V. Ristici⁵, D. Balin^{1,2}, I. Balin^{1,2}

¹ESYRO (EnviroScopY SRL), Iasi, Romania; ²ESYCH (EnviroScopY SA), PSE - EPFL, Lausanne, Switzerland; ³Alexandru Ioan Cuza University, Faculty of Physics, Iasi, Romania; ⁴National Institute of Research & Development for Optoelectronics, INOE, Bucharest, Romania; ⁵National Meteorological Administration, Bucharest, Romania; ⁶CEILAP (CITEFA/CONICET), Villa Martelli, Argentina.

Wednesday - December 2nd (15:30)

Session: Air Quality and Remote Sensing

1- Multiplatform observations of Paris Megacity by a new mobile observatory of atmospheric physico-chemical processes and climate.

J. Cuesta¹, P. Chazette^{1,2}, P. Flamant¹, M. Beekmann³, B. Bonsang², P. Chelin³, D. Edouart¹, L. Estevan¹, V. Gros², J. Sanak² and C. Flamant⁴

¹LMD/IPSL, Palaiseau, France; ²LSCE/IPSL, Gif-sur-Yvette, France; ³LISA/IPSL, Créteil, France; ⁴LATMOS/IPSL, Paris; France.

2- Biomass burning aerosol long range transport tracking using satellites, sunphotometer and lidar in Brazil.

F. Lopes^{1,2}, E. Landulfo¹

¹Instituto de Pesquisas Energéticas e Nucleares - IPEN/CNEN – Brazil. ²Universidade de São Paulo – Brazil.

3- A study of Amazon Basin aerosols properties using CALIOP's and AERONET retrievals.

E. Sena, P. Artaxo and M. Paixão

Departamento de Física Aplicada - Instituto de Física - Universidade de São Paulo.

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4- **Biomass burning aerosols measurements at Rio Claro-SP, Brazil: a case study.**

G. Lopes Mariano¹, E. Landulfo² and M. Pereira Martins Jorge¹

¹Instituto Nacional de Pesquisas Espaciais – INPE. ²Instituto de Pesquisas Energéticas e Nucleares - IPEN/CNEN/CLA.

5- ***Brazilian biomass burning coordinated measurements: a multi-instrument approach.***

M. P. Pereira Martins¹, G. Lopes Mariano¹, E. Landulfo², G. Held³, S. dos Anjos Ferreira Pinto³, R. Guardani⁴ and F. Lopes², J. Steffens⁴.

¹National Institute of Space Research (INPE); ²Nuclear and Energetic Research Institute (IPEN/CNEN/CLA); ³Sao Paulo State University; ⁴Sao Paulo University.

6- ***Lidar range study for extrapolation to meteorological models of Medellin, Colombia.***

D. Nisperuza and Á. Bastidas

Grupo de Láseres y Espectroscopia Óptica. Escuela de Física, Universidad Nacional de Colombia, Medellín, Antioquia.

7- ***Camagüey's solar radiation rescued dataset: preliminary application.***

J. C. Antuña, **C. Bruneta Hernández**, R. Esteban, B. Barja, A. Fontes, and T. Hernández
Instituto de Meteorología (INSMET), Cuba.

8- ***Preliminary results of aerosols measurements with solar photometer at Camagüey Cuba.***

R. Estevan¹, J. C. Antuña¹, B. Barja¹, V. E. Cachorro², A. M. de Frutos², T. A. Hernández¹ and C. E. Hernández¹

¹Estación Lidar de Camagüey, INSMET, Cuba. ²Grupo de Óptica Atmosférica, Universidad de Valladolid, España.

9 – ***Capability of atmospheric air monitoring in Cubatão City using Lidar technique.***

J. Steffens¹, R. Guardani¹, E. Landulfo² and A. Moreira³

¹Escola Politécnica da Universidade de São Paulo, SP – Brasil. ²Instituto de Pesquisas Energéticas e Nucleares, São Paulo, Brazil; ³Petróleo Brasileiro S.A., Ilha do Fundão, Rio de Janeiro, Brazil.

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10 – *Emissions from sugar cane fires in the central & western state of São Paulo and aerosol layers over metropolitan São Paulo observed by IPEN's lidar: Is there a connection?*

G. Held¹, E. Landulfo², F. Lopes², J. Arteta³, V. Marecal³ and José Marcio Bassan¹

¹Instituto de Pesquisas Meteorológicas, Universidade Estadual Paulista, Bauru, S.P., Brazil

²Instituto de Pesquisas Energéticas e Nucleares, Universidade São Paulo, São Paulo, Brazil

³Laboratoire de Physique et Chimie de l'Environnement et de l'Espace, CNRS, Université d'Orleans, France.

11 – *Cloud cover impact on solar UV radiation in Río Gallegos, Argentina.*

P. F. Orte^{1,2}, E. Wolfram², J. Salvador², R. D'Elia², C. Marinelli³ and E. Quel²

¹Fellowship of ANPCyT; ²CEILAP (CITEFA-CONICET), Villa Martelli, Argentina; ³Facultad de Cs. Exactas- Instituto de Ecosistemas y Desarrollo Sustentable- UNCentro.