

Science Meeting
3rd ACTRIS-2 General Meeting
February 1-2, 2017

Science Museum, Av. de la Ciencia, s/n, 18006 Granada, Spain

PROGRAMME

Wednesday, February 1

08:30-10:00 *Registration*

09:00-10:00 **ACTRIS-2 General Assembly meeting** (*Partners and linked Third Parties only*)

10:00-11:00 Oral Session O1: Aerosol climatology and trends (6x 15+5min)

Chair: Ulla Wandinger

Welcome address by Prof. Fernando Cornet, Coordinator of Research Centres of the University of Granada

1. **Aerosol climatology over Europe from 15 years of EARLINET measurements** (Lucia Mona)
2. **Multi-year typology of long-range transported aerosols over Europe** (Doina Nicolae & EARLINET team)
3. **Temporal and spatial trends and variabilities of vertical aerosol profiles over Germany** (Ina Mattis, F. Wagner, H. Flentje, G. Müller, M. Pattantyús-Ábrahám, W. Thomas)

11:00-11:30 *Coffee break*

- 11:30-12:30
4. **What have we learned since aerosol phenomenology 1?** (Jean-Philippe Putaud)
 5. **A European aerosol phenomenology-6: Scattering characteristics of atmospheric aerosols from 28 ACTRIS sites across Europe** (Marco Pandolfi et al.)
 6. **Observed trends in aerosol optical properties, visualization and comparison to models** (Michael Schulz et al.)

12:30-14:00 *Lunch break*

14:00-15:00 Oral Session O2: Trends from long-term trace-gas observations (3x 15+5min)

Chair: Stefan Reimann

1. **Long-term trends of VOCs at the Czech ACTRIS and EMEP station Košetice** (Milan Vana, J. Diskova, J. Cech)
2. **Time series and climatology of trace gases at Hohenpeissenberg** (Christian Plass-Duelmer, A. Claude, R. Holla, J. Englert, S. Gilge, J. Mueller, and D. Kubistin)
3. **MAX-DOAS trace gas observations in NDACC: Towards harmonized and quality-assessed multi-year data products** (François Hendrick, G. Pinardi, S. Compernelle, I. De Smedt, C. Fayt, B. Langerock, M. De Mazière, M. Van Roozendael, and the NDACC UV-visible Working Group)

15:00-16:20 Oral Session O3: Long-term observations at selected stations (5x 15+5min)

Chair: Alfred Wiedensohler

1. **Half decade of observations at a high altitude Global Atmosphere Watch (GAW) station in the South American tropics: Chacaltaya, Bolivia** (Marcos F. Andrade F., R. Forno, L. Blacutt, R. Gutierrez, I. Moreno, F. Velarde, F. Avila, M.F. Sánchez D. Aliaga, M. Roca, P. Laj, P. Ginot, J.L. Jaffrezo, A. Wiedensohler, K. Weinhold, R. Krejci, D. N. Whiteman, M.,

Ramonet, O. Laurent, K. Sellegri, T. Reichler)

2. **5-years continuous on-line monitoring of the submicron aerosol chemical composition in the Paris area, France** (Yunjiang Zhang, Olivier Favez, Valérie Gros, Jean Sciare, Francois Truong, Tanguy Amodeo, Jean-Eudes Petit, Vincent Cretn, Martial Haeffelin)
3. **A Mediterranean Aerosol Phenomenology: Chemical composition** (Nikos Mihalopoulos, J. Sciare et al.)
4. **15-year continuous multi-parameter atmospheric monitoring at the SIRTA ACTRIS supersite for aerosol and cloud research using the ReOBS dataset** (Martial Haeffelin, M. Chiriaco, J.-C. Dupont, J.-A. Bravo-Aranda, Julien Delanoe, C. Pietras, M.-A. Drouin, J. Lopez)

16:20-17:00 Time for discussion

17:00-19:00 Poster Session P1* (+ coffee)

20:30 Social Dinner (Los Chapiteles)

Thursday, February 2

09:00-10:40 Oral Session O4: Model evaluation and integrated studies (5x 15+5min)

Chair: Angela Benedetti

1. **Comparing modelled and measured aerosol optical properties - results from the AeroCom INSITU Project** (Elisabeth Andrews, L. Schmeisser, M. Schulz, M. Fiebig, J. Ogren)
2. **Evaluation and improvement of the parameterization of aerosol hygroscopicity in global climate models using in-situ surface measurement** (Paul Zieger, G. Titos, and B. Andrews)
3. **Towards continuous evaluation of dust profiles in the WMO SDS-WAS** (Sara Basart et al.)
4. **Evaluation of the effect of dust aerosol on the forecast quality of numerical weather prediction models based on continuous ground-based remote sensing within Cloudnet** (Martin Radenz, P. Seifert, H. Griesche)
5. **Long-term study of new particle and shrinkage episodes in a coastal environment: meteorology, gas phase and solar radiation implications** (Ana del Águila, Sorribas, M., Adame, J.A., Vilaplana, J.M., Bogeat, J.A., Córdoba-Jabonero, C., and Yela, M.)

10:40-12:30 Poster Session P2* (+ coffee)

12:30-14:00 Lunch Break

14:00-16:00 ACTRIS PPP Technical meeting

16:00-16:30 Coffee break

16:30-18:00 ACTRIS-2 SSC meeting (SSC members only)

Friday, February 3

09:00-12:00 WP2/WP3 Splinter sessions / CEAMA Research Centre

Chair: Ulla Wandinger (WP2), Stefan Reimann (WP3)

Poster sessions (all posters will be exhibited during both poster session P1 and P2)

#	Authors	Title
Aerosol		
P.1	CF Braban, SR Leeson, MR Jones, I Simmons, B Langford, E Nemitz, MM Twigg	Progress Towards a PM climatology at Auchencorth Moss: integrating mass, composition and fluxes.
P.2	H. Lihavainen, A. Hyvärinen, E. Asmi, J. Hatakka, D. Brus	Variability of aerosol optical properties in northern Finland.
P.3	Sébastien Conil, Clémence Rose, José Nicolas, Paolo Laj and Karine Sellegri.	2-years climatology of aerosol optical properties and size distribution at the Observatoire Perenne de l'Environnement (OPE), France
P.4	Stavroulas, I., J. Sciare et al.	Seasonality of the chemical composition of PM ₁ over Cyprus using near real-time measurements. Sources and geographic origin
P.5	Mihalopoulos N., et al.,	Long-term variability of chemical and physical composition of aerosols at Finokalia (Eastern Mediterranean)
P.6	K. Eleftheriadis	Trends and climatology of Light absorption by Black carbon in the European High Arctic for a period of 15 years
P.7	Augustin Mortier et al.	Multi-decadal trends of Sulfur Species - Preliminary Results
P.8	G. Titos, M. Ealo, A. Alastuey and M. Pandolfi.	2-year comparison of high time resolution in-situ and ceilometer measurements at Montsec: Application to the study of aerosol hygroscopicity
P.9	E. Alonso-Blanco, F. J. Gómez-Moreno, M. Becerril-Valle, E. Coz, L. Nuñez, M. Pujadas, E. Díaz and B. Artíñano	Submicrometer aerosol hygroscopic behavior during local and long-range transport episodes at a suburban site in Madrid
P.10	Molnár, Á., Imre, K., Bécsi, Zs., Aalto, P., Ferenczi, Z.	Features of new particle formation in Central European background air
P.11	Marina Ealo, Andrés Alastuey, Noemí Pérez, Anna Ripoll, Xavier Querol and Marco Pandolfi	From air quality to climate: Impact of aerosol sources on optical properties at urban, regional and continental levels in the north-western Mediterranean
P.12	Sorribas, M., Andrews, B., Adame, J.A., del Águila, A., Yela, M., Sheridan, P., and Ogren, J.A.	Multi-year aerosol study based on aerosol radiative properties at El Arenosillo Observatory: emphasis on an extreme Saharan desert dust episode in February 2016.
P.13	J.L. Guerrero-Rascado, M. J. Costa, M. Sicard, J.L. Gómez-Amo, J. A. Benavent-Oltra, R. Román, D. Bortoli, C. Marcos, P. Ortiz-Amezcuca, A. Cazorla, A. Comerón, C. Muñoz-Porcar, A. Rodriguez, and L. Alados-Arboledas	Vertically-resolved characterization of the February 2016 exceptional Saharan dust episode over the Iberian Peninsula by four EARLINET stations
P.14	N. Siomos, K. A. Voudouri, D.S. Balis, E. Giannakaki, V. Amiridis, M. Filioglou, A. Papayannis, G. D' Amico	Long term changes of the aerosol properties over Thessaloniki using measurements from the EARLINET database and the Single Calculus Chain during the period 2000-2016

#	Authors	Title
P.15	Iwona S. Stachlewska, Krzysztof M. Markowicz, Lucja Janicka, Dominika Szczepanik, Wojtek Kumala, Holger Baars, and Ronny Engelmann	Radiative forcing estimates from climatological EARLINET observations over Warsaw, Poland
P.16	N. Papagiannopoulos, L. Mona, V. Amiridis, I. Binietoglou, G. D'Amico, P. Guma-Claramunt, A. Schwarz, L. Alados-Arboledas A. Amodeo, A. Apituley, D. Bortoli, A. Comeron, J.L. Guerrero-Rascado, M. Mylonaki, D. Nicolae, A. Papayannis, G. Pappalardo, U. Wandinger, and M. Wiegner	Automatic aerosol classification for the EARLINET long-term database
P.17	Alejandro Rodríguez-Gómez, Michaël Sicard, Adolfo Comerón, Rubén Barragán, Constantino Muñoz, Francesc Rocadenbosch	Depolarization measurements: comparisons of UPC and SCC processing
P.18	Pablo Ortiz-Amezcuca, Juan Luis-Guerrero Rascado, Jose Antonio Benavent-Oltra, Roberto Román, Christine Böckmann, Lucas Alados-Arboledas	Constraining lidar stand-alone retrievals with lunar photometry measurements
P.19	J. A. Benavent-Oltra, R. Román, D. Pérez, P. Ortiz-Amezcuca, A. Cazorla, A. Barreto, J.L. Guerrero-Rascado, C. Toledano, A. Lopatin, B. Torres, O. Dubovik, P. Goloub, F.J. Olmo and L. Alados-Arboledas	Preliminary results of aerosol profile retrievals at night combining multi-wavelength lidar, lunar photometry and sky camera images
P.20	R. Román, J. A. Benavent-Oltra, J. A. Casquero-Vera, A. Cazorla, H. Lyamani, C. Toledano, D. Fuertes, B. Torres, O. Dubovik, F. J. Olmo, and L. Alados-Arboledas	Aerosol concentration profiles obtained by GRASP code combining ceilometer and sun photometer measurements
P.21	A. Lopatin, O. Dubovik, I. Veselovskii, P. Goloub et al.	Day and night time retrieval of vertical profile of aerosol properties using a multi-temporal and multi-instrumental approach
P.22	Tsekeri A., Amiridis V., Lopatin A., Marinou E., Igloffstein, J., Giannakaki, E., Pikridas M., Sciare J., Gerasopoulos E., Liakakou E., Wehner, B., Baars H., Kottas M., Mamali, D., Kokkalis P., Raptis I.P., Stavroulas, I., Solomos S., Binietoglou I., Mihalopoulos N., Papayannis, A., Engelmann R., Wandinger U., Ansmann A., Dubovik O.	Challenges in aerosol absorption profiling.

#	Authors	Title
P.23	Carmen Córdoba-Jabonero, Michaël Sicard, Albert Ansmann, Ana del Águila, and Holger Baars	Vertical separation of the atmospheric aerosol components by using POLIPHON retrieval in polarized Micro Pulse Lidar (P-MPL) measurements: Case studies of specific climate-relevant aerosol types
P.24	A. J. Fernández, F. Molero, M. Becerril-Valle, E. Alonso-Blanco, M. Barreiro, L. Nuñez, P. Salvador, M. Palacios, F.J. Gómez, E. Díaz, E. Coz, A. Hernanz, B. Artíñano and M. Pujadas	Characterization of aerosol hygroscopic growth over Madrid through remote sensing techniques
P.25	A. Bedoya, F. Navas-Guzmán, M. J. Granados-Muñoz, J.L., Guerrero-Rascado and L. Alados-Arboledas	Study of Aerosol Hygroscopic Enhancement factor by combination of lidar and microwave radiometer (MWR)
P.26	Livio Belegante, Ilya Serikov, Panos Kokkalis, Bjorn Bruegmann, Ludwig Worbes, Victor Nicolae, Iwona Stachlewska	Design of the airborne multi-wavelength high spectral resolution lidar MULTIPLY
Trace Gases		
P.27	J. Kentisbeer, I Simmons, MR Jones, S R Leeson, M M Twigg, CF Braban	NOx measurements at Auchencorth Moss: Summary of 2016 photolytic and thermal NOx measurements
P.28	S. Sauvage, V. gros, J. Sciare, V. Michoud, C. Debevec, M. Pikridas, B. Bonsang, S., Dusanter, N. Locoge	Variability of volatile organic compounds observed at two Mediterranean remote sites (Cape Corsica and Cyprus Atmospheric Observatory) in relation with the organic aerosol composition.
P.29	Truman Wright, Dusan Materic, Rupert Holzinger	Development of fast and automated QA/QC protocols for PTR-MS by exploiting gas standard injections from a sampling loop.
Clouds and humidity		
P.30	Patric Seifert, A. Ansmann, H. Baars, J. Bühl, T. Kanitz, S. Bohlmann, R. Engelmann and C. Kunz	Lidar-based observations of the seasonal and spatial variability of heterogeneous ice formation in stratiform clouds
P.31	Stephanie Rusli (TU Delft, KNMI), David Donovan (KNMI), Herman Russchenberg (TU Delft)	Simultaneous profiling of cloud and drizzle properties using ground-based radar, lidar and microwave radiometer
P.32	Hirsikko, A., Brus, D., O'Connor, E.J., Filioglou, M., Komppula, M., Romakkaniemi, S.	Properties of super-cooled liquid water topped sub-arctic clouds and precipitation during PaCE-2015
P.33	Ana del Águila, Laura Gómez, José Manuel Vilaplana, Mar Sorribas, and Carmen Córdoba-Jabonero	Cirrus cloud observations at the Atmospheric Observatory 'El Arenosillo' (SW Iberian Peninsula): A case study for radiative implications
P.34	A. J. Illingworth and J C Nicol (univ of Reading, UK), C J Walden and W J Bradford (STFC, Chilbolton Observatory, UK)	Direct observations of attenuation by wet radomes and antennas for 35 and 94GHZ cloud radars
P.35	Bernhard Pospichal, U. Löhnert, N. Küchler (University of Cologne)	Uncertainties and recent improvements of liquid water path observations by ground-based microwave radiometers with some examples from long-term Cloudnet station records

#	Authors	Title
P.36	Maria Barrera-Verdejo, Forschungszentrum Jülich, S. Crewell and U. Löhnert, University of Cologne, P. Di Girolamo from Università degli studi della Basilicata, Potenza (Italy)	Lidar and Microwave Radiometer Synergy for High Vertical Resolution Thermodynamic Profiling
P.37	Constantino Muñoz-Porcar, A. Comerón, M. Sicard, A. Rodríguez-Gómez, F. Rocadenbosch, R. Barragán, D. Garcia-Vizcaino	Diffuse sunlight based calibration of the water vapor channel in the UPC Raman lidar
Campaigns, joint research and TNA		
P.38	Esther Coz, J. A. Casquero-Vera, H. Lyamani, D. P. Aguilera, F. J. Olmo, A. Cazorla, B. Artiñano and L. Alados-Arboledas	Real-time Chemical Characterization of Atmospheric Aerosols during the SLOPE Campaign
P.39	Juan Andrés Casquero-Vera, H. Lyamani, D. P. Aguilera, I: Hormigo, H. Horvath, E. Coz, I. Foyo-Moreno, F. J. Olmo and L: Alados-Arboledas	Characterization of in situ aerosol properties under different atmospheric conditions during SLOPE campaign
P.40	Alberto Cazorla, Gloria Titos, Noemí Pérez, Marina Ealo, Hassan Lyamani, Juan Andrés Casquero-Vera, Jose Benavent, Roberto Román, Pablo Ortíz-Amezcuca, Marco Pandolfi, Adrés Alastuey, Francisco José Olmo, Lucas Alados-Arboledas	SLOPE (Sierra Nevada Lidar AerOsol Profiling Experiment) AIRCRAFT CAMPAIGN
P.41	G. de A. Moreira, J.L. Guerrero-Rascado, P. Ortiz-Amezcuca, J. A. Benavent-Oltra, R. Román, A. Bedoya, E. Landulfo, L. Alados-Arboledas	Synergy of Doppler and Elastic lidar for studying atmospheric turbulence: AMAPOLA and SLOPE campaigns
P.42	Qiaoyun Hu et al.	Aerosol absorption from measurements and GARRLIC retrievals during SHADOW-2 campaign
P.43	Tsekeri A., Amiridis V., Lopatin A., Marinou E., Iglhoffstein, J., Giannakaki, E., Pikridas M., Sciare J., Gerasopoulos E., Liakakou E., Wehner, B., Baars H., Kottas M., Mamali, D., Kokkalis P., Raptis I.P., Stavroulas, I., Solomos S., Binietoglou I., Mihalopoulos N., Papayannis, A., Engelmann R., Wandinger U., Ansmann A., Dubovik O.	Aerosol absorption profiling in the framework of the ACTRIS-2 JRA1 campaigns in Germany, Greece and Cyprus.
P.44	Lucas Alados-Arboledas, Gordillo M., Monick G, Román R., Lyamani	Absorbing aerosols monitoring over Antarctica

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P.45	Luminita Marmureanu, Jeni Vasilescu, Cristina Marin.	Aerosol sources derived from chemical and optical absorption measurements at Bucharest site
P.46	A. Apituley, M. van Roozendaal, A. Richter, T. Wagner, U. Friess, F. Hendrick, and CINDI-2 participants	Overview and first results of the CINDI-2 campaign in Cabauw
P.47	Kangming Xu, Jessica Strickland, Bas Henzing, Rupert Holzinger	TD-PTR-MS measurements of organic aerosol and semivolatile gas phase compounds during the Actris JRA1 campaign at Cabauw, Netherlands, in autumn 2016
P.48	R. Modini, <u>M. Gysel</u> , N. Bukowiecki, J.S. (Bas) Henzing, A. Apituley, M. Moerman, M. Ealo Alonso, P. Fetfatzis, K. Eleftheriadis and P. Laj	Black carbon mixing state and mass absorption coefficient observed during the Cabauw field experiment in fall 2016
P.49	Alessia Mafodda, Paul Smeets, Bas Henzing, Marcel Moermann, Fred Bosveld, Arnoud Apituley, <u>Rupert Holzinger</u>	Eddy covariance fluxes of particles measured 60m above the ground at the CESAR observatory near Cabauw, Netherlands
P.50	Neitola, K., J. Sciare et al.	1-year routine atmospheric observations using Unmanned Aerial Vehicles (UAVs) over Cyprus: Strategy and perspectives
P.51	<u>Amalia Muñoz</u> , Esther Borrás, Milagros Ródenas, Teresa Vera, Presenting autor: Amalia Muñoz:	Removal of nitrogen oxides and other organic pollutants from the gaseous phase by photocatalytic textiles. Simulations performed at the EUPHORE simulation chambers
P.52	<u>Amalia Muñoz</u> , Esther Borrás, Milagros Ródenas, Teresa Vera, Hans-Albert Pedersen. Presenting autor: Amalia Muñoz	Atmospheric degradation of thiocarbamate herbicides under atmospheric conditions
P.53	<u>Esther Borrás</u> , Milagros Ródenas, Cristina Gimeno, Teresa Vera, Tatiana Gómez, Daniel Hernandez, Marlon Salazar, Amalia Muñoz: Presenting autor: Esther Borrás.	Comparison of gaseous inorganic and organic pollutants trends in the presence and in the absence of photocatalytic textiles at urban locations. Active and passive campaigns.
P.54	Fabio Madonna, P. Thorne, R. Davy, K. Kreher, J.-C. Lambert, B. Bell, J. Schulz, M. de Maziere, H. Lawrence, G. de Leeuw, A. Fasso, A. Meier, T. Verhoelst	Gap Analysis for Integrated Atmospheric ECV CLlimate Monitoring: The GAIA-CLIM H2020 project
ACTRIS sites and infrastructure		
P.55	Jean-Charles Dupont, M. Haeffelin, J. Badosa, I. Bastida, J.-A. Bravo-Aranda, C. Pietras, M.-A. Drouin, C. Boitel	The SIRTA atmospheric observatory. 15 years of national and transnational access for research and education.
P.56	<u>M. Vana</u> , A. Holubova, V. Zdimal, J. Klanova	ACTRIS-CZ – the national contribution to the Pan-European research infrastructure.
P.57	J. Sciare et al.	The Cyprus Atmospheric Observatory: A new ACTRIS atmospheric observatory in the Eastern Mediterranean Middle East region

#	Authors	Title
P.58	Steffen M. Noea, Urmas Hörrakb, Sander Mirmeb, Marko Kaasikb, Alisa Krasnovaa, Dmitrii Krasnova, Kaupo Komsaareb, Ahto Kangurc.	SMEAR Estonia – air ion, aerosol and precursor gas measurements
P.59	Joelle Buxmann, J. Mrziglod, M. Adam, A. Horseman, L. Blarel , P. Thierry, P. Goloub and J. Sugier	The UK operational volcanic ash monitoring sun photometer–lidar network
P.60	Kazadzis, Founda et al.	A century long term measurements of solar radiation and visibility in Athens
Calibration Centres, Data Centre, Physical access		
P.61	R. Steinbrecher, C. Plass-Dülmer, A. Claude, S Reiman, T. Petaya, F. Rohrer, S. Sauvage.	Calibration centre for reactive trace gases
P.62	R. Holla, F. Rohrer, J. Englert, D. Weyrauch, D. Kubistin, and the participants-team.	ACTRIS-NOx intercomparison 2016 at Hohenpeissenberg
P.63	S. Schüttauf et al.	ECAC - The European Center for Aerosol Calibration within the 1st reporting period of ACTRIS
P.64	Philippe Goloub, C. Toledano, E. Cuevas	European AERONET calibration facility
P.65	Livio Belegante, V. Freudenthaler, L. Mona, A. Amodeo, D. Nicolae	ACTRIS Lidar Calibration Centre
P.66	Cathrine Lund Myhre, L. Mona, E. O'Connor, J. Descloitres, M. Fiebig	ACTRIS Data Centre
P.67	M. Ndisi et al.	Physical access to ACTRIS observational facilities
P.68	Herman Russchenberg, J.-C. Dupont, J. Delanoë, M. Haefelin, C. Walden, A. Illingworth	ACTRIS Cloud radar calibration center. Experimental setup, operations and services
Other		
P.69	Johannes Bühl, Martin Radenz	Long-term observations of ice formation rate in mixed-phase cloud layers with Cloudnet
F.1	Natalia Prats Porta, Emilio Cuevas et al.	Film of the Izaña Observatory centenary (shown during beginning of P2 session, poster room)