

2nd ACTRIS-2 General Meeting

29 February – 4 March 2016

ESA/ESRIN
Frascati, Italy

AGENDA

Time	Mon 29/02	Tue 01/03	Wed 02/03	Thu 03/03	Fri 04/03
AM	Side meetings*	JRA-related presentations	Satellite-related presentations	Invited presentations Poster session 3 General Assembly	Side meeting*
Lunch break (13-14h)					
PM	14h Official start Data centre WP2/WP3 parallel sessions	JRA-related presentations Poster session 1	Satellite-related presentations Poster session 2 Joint dinner	General Assembly 16h Official end SSC-SAB	

*Side meetings (9-13h): Monday am (JRA2, EARLINET Single-Calculus Chain), Friday am (JRA1).

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MONDAY, FEBRUARY 29

SIDE MEETINGS

08:00	<i>Bus departure from Frascati centre (Piazza Marconi) to ESRIN</i>	
09:00-11:00	Side meeting WP12: Leena Järvi (JRA2 community)	Side meeting EARLINET-SCC: Giuseppe D'Amico (Single Calculus Chain WG)
11:00-11:30	<i>Coffee Break</i>	
11:30-13:00	Side meeting WP12 (cont'd): Leena Järvi (JRA2 community)	Side meeting EARLINET-SCC (cont'd): Giuseppe D'Amico (Single Calculus Chain WG)
13:00	<i>Bus departure from Frascati centre (Piazza Marconi) to ESRIN</i>	
13:00-14:00	<i>Lunch break</i>	
13:00-14:00	<i>Registration (also possible all morning)</i>	

ACTRIS-2 GENERAL MEETING

14:00-14:10	Gelsomina Pappalardo (CNR), Paolo Laj (CNRS): Introduction	
14:10-14:30	Henri Laur, Head of the Mission Management Division, Directorate for Earth observation Programmes (ESA/ESRIN): Welcome address	
14:30-15:15	Cathrine Lund Myhre (NILU), Lucia Mona, CNR), Ewan J. O' Connor (UoR/FMI), Jacques Descloitres (CNRS), Markus Fiebig (NILU): ACTRIS-2 Data Centre	
15:15-15:30	Doina Nicolae (INOE): ACTRIS-2 Calibration facilities and services	
15:30-16:00	<i>Coffee Break</i>	
16:00-18:00	WP2 Splinter session: Ulla Wandinger (NA2 Community)	WP3 Splinter session: Nikos Mihalopoulos (NA3 Community)
18:00	<i>Adjourn</i>	
18:15	<i>Bus departure from ESRIN to Frascati centre (Piazza Marconi)</i>	

TUESDAY, MARCH 1

PRESENTATIONS RELATED TO JRA1 ACTIVITY

Chairs: Nicolas Bukowiecki, Lucas Alados Arboledas

(Presentations: 15 + 5 min)

- 08:15 *Bus departure from Frascati centre (Piazza Marconi) to ESRIN*
- 09:00-09:20 **Nicolas Bukowiecki (PSI)**: Introduction to JRA1 session – Improving the accuracy of aerosol light absorption determinations
- 09:20-09:40 **Martin Gysel (PSI)**: In situ absorption measurements during the Melpitz Column experiment and the Athens Campaign: methodological aspects
- 09:40-10:00 **Birgit Wehner (TROPOS)**: Vertical profiles of aerosol particle absorption and number concentration during Melpitz Column 2015
- 10:00-10:20 **Vassilis Amiridis (NOA)**: Aerosol vertical profiling utilizing the synergy of lidar, sunphotometry and in-situ measurements in the framework of the ACTRIS campaigns in Athens and Melpitz
- 10:20-10:40 **Philippe Goloub (Université de Lille / CNRS)**: Study of african dust with multi-wavelength Raman lidar during “shadow” campaign in Senegal
- 10:40-11:00 **Anton Lopatin (CNRS-LOA)**: Application GARRLiC/GRASP algorithm to combined day and night observations during SHADOW campaign
- 11:00-11:40 *Coffee Break*

PRESENTATIONS RELATED TO JRA2 ACTIVITY

Chairs: Leena Järvi, Rupert Holzinger

(Presentations: 15 + 5 min)

- 11:40-12:00 **Leena Järvi (UHEL)**: Introduction to JRA2 session – Particle exchange from tower and remote sensing based estimates
- 12:00-12:20 **Ben Langford (NERC)**: Measurements of composition resolved aerosol fluxes using the Aerodyne Aerosol Mass Spectrometer
- 12:20-12:40 **Ewan O'Connor (FMI/UREAD)**: State-of-the-art calculation of particle fluxes from lidar data
- 12:40-13:00 **Antti Manninen (UHEL)**: Hyytiälä case-study of the comparison of remote sensing and in-situ derived particle fluxes
- 13:00-14:00 *Lunch break*

PRESENTATIONS RELATED TO JRA3 ACTIVITY

Chairs: Angela Benedetti, Michael Schulz

(Presentations: 15 + 5 min)

- 14:00-14:20 **Angela Benedetti (ECMWF)**: Introduction to JRA3 session - The role of network observations for composition model evaluation, assimilation and trend analysis
- 14:20-14:40 **Enza di Tomaso (BSC)**: Mineral dust modelling and ensemble-based data assimilation at the Barcelona Supercomputing Center
- 14:40-15:00 **Anne Caroline Lange (Univ Cologne)**: Lidar validation of SEVIRI data assimilation analysing the 2010 Eyjafjallajökull ash dispersion
- 14:45-15:05 **Hendrik Elbern (Univ Cologne)**: Observability optimisation of measurement networks for chemistry data assimilation
- 15:00-15:20 **Michael Schulz (MetNo)**: An update on aerosol trends and the visualisation of these trends
- 15:20-15:40 **Svetlana Tsyro (MetNo)**: The use of vertical aerosol profile info for the validation of models (example: ACTRIS 2012 campaign compared to EMEP model)
- 15:40-16:15 Discussion**

POSTER PRESENTATIONS – GENERAL TOPIC

- 16:15-19:00 **Poster session 1** *(incl. Beverages + snacks)*
- 19:00 *Adjourn*
- 19:15 *Bus departure from ESRIN to Frascati centre (Piazza Marconi)*

WEDNESDAY, MARCH 2

PRESENTATIONS RELATED TO SATELLITE ACTIVITIES

ESA PRESENTATIONS

Chairs: Bojan Bojkov, Ralph Kahn

(Presentations: 18 + 2 min)

- 08:00 *Bus departure from Frascati centre (Piazza Marconi) to ESRIN*
- 08:30-08:50 **Bojan Bojkov (ESA/ESRIN)**: The importance of Fiducial Reference Measurements (FRM) for Satellite Earth Observation Characterisation
- 08:50-09:10 **Jonas von Bismarck (ESA/ESRIN)**: Overview of the ESA ADM-Aeolus mission and it's validation needs

- 09:10-09:30 **Michael Eisinger (ESA/ESTEC)**: Overview of the ESA EarthCARE mission and it's validation needs
- 09:30-09:50 **Thorsten Fehr (ESA/ESTEC)**: The validation needs of the Sentinel-5 precursor mission
- 09:50-10:10 **Ruediger Lang (EUMETSAT)**: EUMETSAT activities for the MetOp, Sentinel-3 and EPS-SG atmospheric products.
- 10:10-10:30 **Alexander Cede (Luftblick/NASA-GSFC)**: Satellite air-quality validation using ground-based mini-spectrometer systems: The Pandonia fiducial reference measurements network
- 10:30-11:00 *Coffee Break*
- 11:00-11:20 **Juergen Fischer (SpectralEarth/ FUB)**: Advanced Clouds, Aerosols and WATER vapour products for Envisat/MERIS and Sentinel-3/OLCI, and their validation needs
- 11:20-11:40 **Oleg Dubovik (CNRS-LOA)**: Advanced GRASP retrievals applied to the PARASOL, Envisat/MERIS and Sentinel-3/OLCI instruments

WP2/3-RELATED PRESENTATIONS

Chairs: Ulla Wandinger, Adolfo Comeron (WP2) – Nikos Mihalopoulos, Stefan Reimann (WP3)

(Presentations: 15 + 5 min)

- 11:40-12:00 **Lucia Mona (CNR-IMAA)**: EARLINET long-term aerosol observations for the evaluation, improvement and integration with CALIPSO aerosol data
- 12:00-12:20 **Vassilis Amiridis (NOA)**: Application of advanced EARLINET methodologies on space-borne lidars for the retrieval of higher level products
- 12:20-12:40 **Ulla Wandinger (TROPOS)**: Development of an EarthCARE aerosol model from ground-based observations with advanced aerosol lidars
- 12:40-13:00 **Johannes Bühl (TROPOS)**: Comparison of cloud microphysical products derived from Cloudnet and space-borne cloud radar observations
- 13:00-14:00 *Lunch break*
- 14:00-14:20 **Ewan J. O'Connor (FMI)**: Comparison of MODIS and VIIRS cloud properties with ARM ground-based observations over Finland
- 14:20-14:40 **Doina Nicolae (INOE)**: Development of an airborne multiwavelength High Spectral Resolution Lidar in support of the Cal/Val of aerosol satellite missions
- 14:40-15:00 **Nicole Papineau (CNRS-AERIS)**: Development of tools and services for common use of satellite and ground based data in AERIS, French data center

- 15:00-15:20 **Mihalis Vrekoussis (Cyl)**: Space-based observations of VOCs and NO₂
- 15:20-15:40 **M. Fiebig (NILU)**: Aerosol type identification using data from surface in situ aerosol monitoring stations: A possible connection of surface and column, with Birkenes station as an example
- 15:40-16:10 *Coffee Break*
- 16:10-16:30 **Athanasios Nenes (NOA)**: Counterintuitive but important trends in aerosol pH: lessons from the Eastern US and a potentially important application for ACTRIS network data
- 16:30-17:00 **ESA-ACTRIS Discussion (chaired by Bojan, Gelsomina and Paolo)**

POSTER PRESENTATIONS – GENERAL TOPIC

- 17:00-19:00 **Poster session 2** (*incl. Beverages + snacks*)
- 19:00 *Adjourn*
- 19:15 *Bus departure from ESRIN to Frascati centre (Piazza Marconi)*
- 20:00 *Joint Dinner*

THURSDAY, MARCH 3

INVITED PRESENTATIONS

Chairs: Gelsomina Pappalardo, Paolo Laj
(*Presentations: 20 + 5 min*)

- 08:30 *Bus departure from Frascati centre (Piazza Marconi) to ESRIN*
- 09:00-09:25 **Ralph Kahn (NASA Goddard Space Flight Centre)**: Synergies Between Satellite and Suborbital Aerosol Measurements
- 09:25-09:50 **Barry Lifer (NASA Earth Science Division)**: An overview of NASA's monitoring networks related to atmospheric composition

POSTER PRESENTATIONS – GENERAL TOPIC

- 09:50-11:30 **Poster session 3** (same posters as in session 2)
Incl. Coffee Break

ACTRIS-2 GENERAL ASSEMBLY
Chairs: Gelsomina Pappalardo, Paolo Laj

- 11:30-11:45 **Gelsomina Pappalardo (CNR):** ACTRIS-2 Overview
- 11:45-12:00 **Ulla Wandinger (TROPOS):** WP2 – Profiles of aerosols and clouds (NA2)
- 12:00-12:15 **Nikos Mihalopoulos (NOA):** WP3 - Near-surface observations of aerosols, clouds, and trace gases (NA3)
- 12:15-12:30 **Gelsomina Pappalardo (CNR):** WP4 - ACTRIS-2 Innovation platform (NA4)
- 12:30-13:00 **Paolo Laj (CNRS):** WP5 - ACTRIS-2 Training, outreach, and sustainability actions (NA5) / ACTRIS-2 & ENVRIplus
- 13:00-14:00 *Lunch break*
- 14:00-14:15 **Sabine Philippin (CNRS):** WP6-7-8-9 – Transnational access to calibration centres and observing stations (TNA1-4)
- 14:15-14:30 **Cathrine Lund Myhre (NILU):** WP10 – ACTRIS Data Centre (VA1)
- 14:30-14:45 **Nicolas Bukowiecki (PSI):** WP11- Improving the accuracy of aerosol light absorption determinations (JRA1)
- 14:45-15:00 **Leena Järvi (UHEL):** WP12 - The surface exchange and vertical transport of aerosols (JRA2)
- 15:00-15:15 **Angela Benedetti (ECMWF):** WP13 - Model evaluation, assimilation, and trend studies (JRA3)
- 15:15-15:30 **Gelsomina Pappalardo (CNR), Paolo Laj (CNRS):** News from ACTRIS RI
- 15:30-15:40 **Sabine Philippin (CNRS):** WP1 – Management
- 15:40-16:00 **General Discussion & Votes**
- 16:00 *End of ACTRIS-2 General Assembly*
- 16:00-16:30 *Coffee Break*
- 16:30 *Bus departure from ESRIN to Frascati centre (Piazza Marconi)*
- 16:30-18:00 **ACTRIS-2 SSC-SAB (members only)**
- 18:00** **End of ACTRIS-2 General Meeting**

FRIDAY, MARCH 4

SIDE MEETING

- 08:30 *Bus departure from Frascati centre (Piazza Marconi) to ESRIN*
- 9:00-11:00 **Side meeting WP11:** Nikolas Bukowiecki (JRA1 community)
- 11:00-11:30 *Coffee Break*
- 11:30-13:00 **Side meeting WP11 (cont'd):** Nikolas Bukowiecki (JRA1 community)
- 13:00 *End of Meeting*
- 13:00-14:00 *Lunch break*

2nd ACTRIS-2 General meeting POSTER presentations

Poster sessions 1-3: (Tuesday, Wednesday, Thursday) Central facilities		
#	Presenter	Title
P-CF-1	Cathrine Lund Myhre (NILU), Lucia Mona (CNR), Ewan O'Connor (FMI), Jacques Descloitres (CNRS), Markus Fiebig (NILU)	ACTRIS Data Centre
P-CF-2	Doina Nicolae, Gelsomina Pappalardo, Aldo Amodeo, Lucia Mona (CNR-IMAA), Volker Freudenthaler (LMU) Livio Belegante (INOE)	The Lidar Calibration Centre - a recently established ACTRIS calibration facility
P-CF-3	Philippe Goloub (CNRS-LOA/ULille), Carlos Toledano (UVA), Emilio Cuevas (AEMET)	The European AERONET calibration facility - recent update within ACTRIS-2
P-CF-4	Alfred Wiedensohler (TROPOS), Jean-Philippe Putaud, (JRC), Evelyn Freney (CNRS-LAMP)	ECAC – European Centre for Aerosol Calibration
P-CF-5	Herman Russchenberg (TU Delft), Martial Haeffelin (IPSL), Chris Walden (Chilbolton Observatory)	Towards an ACTRIS radar calibration facility

Poster session 1 (Tuesday)		
#	Presenter	Title
P1-WP2-1	I. Mattis, F. Wagner and Gerhard Müller	The Hohenpeissenberg EARLINET station
P1-WP2-2	C. Acquistapace, S. Kneifel, P. Kollias, U. Löhnert, M. Maahn, E. Orlandi	Improving drizzle onset detection using cloud radar Doppler spectra higher moments
P1-WP2-3	T. Marke, E. O'Connor, S. Crewell, U. Löhnert, A. Manninen, U. Rascher, J. Schween	An integrated approach for classifying the cloudy boundary layer
P1-WP2-4	I. Popovici, A. Mortier, P. Goloub, T. Podvin, L. Blarel, R. Loisil, C. Deroo and S. Victori	Aerosol spatial distribution as seen by a mobile observing system
P1-WP2-5	J. A. Bravo-Aranda, C. Pietras, M. Haeffelin	Aerosol property retrievals toward tropospheric aerosol typing using IPRAL multi-wavelength Lidar and ancillary measurements at the SIRTa observatory
P1-WP2-6	D. Bortoli, S. Pereira, P. Kulkarni, M. Potes, M. J. Costa, A. M. Silva	Polly XT Lidar at the Evora Station - dust observations during 2015
P1-WP2-7	P. Ortiz-Amezcuca, J. A. Benavent-Oltra, J.L. Guerrero-Rascado, D. Pérez, C. Boeckmann, D. Müller, J. Rosemann, F. Navas, M. Tesche, F.J. Olmo and L. Alados-Arboledas	Constraining Raman Lidar microphysical profiling with star radiometer
P1-WP2-8	J. A. Benavent-Oltra, P. Ortiz-Amezcuca, R. Román, J.L. Guerrero-Rascado, D. Pérez, O. Dubovik, D. Fuertes, B. Torres, A. Cazorla, J.L. Bosch, F.J. Olmo and L. Alados-Arboledas	Day-night aerosol microphysical profiling combining lidar and sun/star radiometer
P1-WP2-9	S. Samaras, C. Böckmann, D. Nicolae	Combined sphere-spheroid particle model for the retrieval of the microphysical aerosol parameters via regularized inversion of lidar data
P1-WP2-10	G. D'Amico, I. Mattis, H. Baars, I. Binietoglou; L. Mona; F. Amato; P. Kokkalis; A. Rodríguez	Automatic lidar data analysis tool: The Single Calculus Chain (SCC) – current status and next steps
P1-WP2-11	J. Vasilescu, C. Talianu, D. Nicolae	Automatic aerosol typing from multiwavelength Raman lidar

P1-WP2-12	<u>E. G.A. Moreira</u> , E. Landulfo, J.L. Guerrero-Rascado, J. A. Benavent-Oltra, P. Ortiz-Amezcuca, and L. Alados-Arboledas	Study of atmospheric turbulence by elastic lidar
P1-WP2-13	<u>I. S. Stachlewska</u> , M. Costa-Sueros, L. Janicka, W. Kumala, K. Markowicz, and H. Pawlowska	Lidar observations at University of Warsaw within EARLINET / ACTRIS-2
P1-WP2-14	<u>A. J. Illingworth</u> , J. C. Nicol, C. J. Walden and W. J. Bradford	Direct observations of wet radome attenuation at 94GHz
P1-WP2-15	<u>A. Boselli</u> , A. Sannino, C. Bo Song, N. Spinelli, Z. Yiming and X. Wang	Atmospheric particles properties retrieval from LIDAR measurement campaign in Dunhuang, Cina

P1-WP3-1	<u>E. Freney</u> , V. Gros, O. Favez, J. Sciare, F. Truong, T. Amodeo	ACMCC: Aerosol Chemical Monitor Calibration centre. A new facility for the quality control of the ACTIRS-2 Aerosol Chemical Speciation
P1-WP3-2	D. Brus, <u>N. Kivekäs</u>	Overview of the Pallas Cloud Experiment 2015 - PaCE 2015
P1-WP3-3	<u>A. Alastuey</u> , N. Pérez, M.C. Minguillón, M. Pandolfi, X. Querol, N. Marchand, A. Bertrand, B. Temime-Roussel, D. Beddows, R.M. Harrison, H.-K. Lee, H.-R. Eun, K.-H. Ahn, A. Lyasota, B. Codina	Integrated study of O ₃ , UFP, and secondary aerosols and their spatial and vertical variability in urban and regional environments of the Western Mediterranean (UFO-AHI, AUFU-UHIC)
P1-WP3-4	<u>S. Dusanter</u> , V. Michoud, S. Sauvage, T. Léonardis and N. Locoge	Comparison of OVOC measurements from PTR-ToFMS, online GC and offline sampling on DNPH cartridges.
P1-WP3-5	<u>S. Sauvage</u> , S. Dusanter, T. Léonardis, M. Hill, S. Reiman and N. Locoge	Watter trap validation for OVOCs measurement method improvement
P1-WP3-6	<u>M. Zanatta</u> , F. Cavalli, M. Gysel, N. Bukowiecki, T. Müller, E. Weingartner, H. Areskoug, M. Fiebig, N. Mihalopoulos, G. Kouvarakis, D. Beddows, R.M. Harrison, J.P. Putaud, G. Spindler, A. Wiedensohler, A. Alastuey, M. Pandolfi, K. Sellegri, E. Swietlicki, U. Baltensperger and P. Laj	Climatology of black carbon optical properties at 9 regional background sites across Europe
P1-WP3-7	<u>A. Marinoni</u> , A. Lupi, P. Cristofanelli, F. Calzolari, R. Duchi, and P. Bonasoni	Seasonal variation of aerosol size distributions based on long term measurements at GAW Global Monte Cimone Station (2165 m asl), Italy

P1-WP3-8	<u>R. Duchi</u> , P. Cristofanelli, T. C. Landi, A. Marinoni, D. Putero, F. Calzolari, M. Busetto, U. Bonafe and P. Bonasoni	Ten years of Saharan mineral dust transport at Mt. Cimone GAW station
P1-WP3-9	D. Putero, A. Marinoni, P. Cristofanelli, M. Busetto, R. Duchi, T.C. Landi, F. Calzolari, and P. Bonasoni	Four years of aerosol absorption coefficient measurements at Mt. Cimone: study of processes affecting their variability,
P1-WP3-10	<u>P. Cristofanelli</u> , R. Duchi, A. Marinoni, J. Arduini, M. Busetto, F. Calzolari, M. Maione, and P. Bonasoni	NO and NO ₂ continuous observations at Mt. Cimone (2165 m a.s.l., Italy): preliminary investigation of variability and photochemical regimes
P1-WP3-11	A. M. Fjærraa, C. Lund Myhre, M. Fiebig, N. Mihalopoulos, S. Reimann, A. Wiedensohler	Overview and visualisation of timeseries of ACTRIS data in EBAS
P1-WP3-12	<u>C. Angelov</u> , I. Kalapov, T. Arsov, N. Nikolova	BEO Moussala measurements 2016
P1-WP3-13	<u>E. Lo Vullo</u> , Jg. Arduini, F. Furlani, U. Giostra, F. Graziosi, M. L. Williams, P. Cristofanelli, and M. Maione	Anthropogenic non-methane volatile organic compounds at Mt. Cimone (2165 m a.s.l., Italy): sources and reactivity
P1-WP3-14	<u>S.Punjabi</u> , K.A. Read, C. Reed, L.J. Carpenter, J.D. Lee, J.R. Hopkins, A.C. Lewis, S. Arnold, L.M. Neves	Multi-year (2006-2015) record of VOC and NO _x at the Cape Verde Atmospheric Observatory
P1-WP3-15	M.I. Gini, P. Fetfatzis, S. Vratolis, J. Corbin, A.C. Kalogridi, E. Diapouli, V. Vasilatou, V. Amiridis, A. Tsekeri, E. Liakakou, N. Mihalopoulos, M. Gysel, and K. <u>Eleftheriadis</u>	Aerosol absorption and coarse mode measurements during the JRA1 Aerosol absorption measurement campaign in Athens

Poster session 2-3 (Wednesday, Thursday)		
#	Presenter	Title
P2-WP2-1	A. Apituley, U. Wandinger, V. Amiridis, L. Mona, E. O'Connor, et al.	ACTRIS activities in Sentinel-5p/TROPOMI and ADM-Aeolus CAL/VAL
P2-WP2-2	R. Barragan, M. Sicard, J. Totems, J.-F. Léon, M. Mallet, J. Pelon, L. Alados-Arboledas, A. Amodeo, P. Augustin, A. Boselli, J. A. Bravo-Aranda, P. Burlizzi, P. Chazette, A. Comerón, G. D'Amico, F. Dulac, M. J. Granados-Muñoz, G. Leto, J. L. Guerrero-Rascado, F. Madonna, L. Mona, C. Muñoz-Porcar, G. Pappalardo, M. R. Perrone, V. Pont, F. Rocadenbosch, A. Rodriguez, S. Scollo, N. Spinelli, G. Titos, X. Wang, R. Zanmar Sanchez	Spatio-temporal monitoring of a Saharan dust event affecting southern Europe by a synergy of several ground-based and air- and space-borne lidars and passive remote sensing instruments
P2-WP2-3	C. Pietras; J-A. Bravo-Aranda; M. Haeffelin	Satellite Cal/Val using IPRAL high-performance multi-wavelength Raman Lidar: Heritage from Earlinet research
P2-WP2-4	M. Chiriaco, H. Chepfer, S. Bastin, V. Noel, M. Reverdy, J-C. Dupont, J. Badosa, J. Lopez, M. Haeffelin	Toward multi-decadal active sensor cloud observations using ground and satellite-based remote sensing measurements
P2-WP2-5	S. Lolli, F. Madonna, M., Rosoldi, G. Pappalardo, E. J. Welton	Sensitivity Analysis on Fu-Liou-Gu Radiative Transfer Model for different lidar aerosol and cloud profiles (MICROLIRA)
P2-WP2-6	S. Nickovic, B. Cvetkovic, F. Madonna G. Pejanovic and S. Petkovic	Parameterization of cloud glaciation by atmospheric dust (IDEAL-DREAM)
P2-WP2-7	I. Mattis, F. Wagner, M. Pattantyús-Ábrahám, and the CEILINEX team	The CeiLinex2015 ceilometer intercomparison campaign
P2-WP2-8	M. Barrera-Verdejo, S. Crewell, U. Löhnert, E. Orlandi	Determination of atmospheric water vapor and temperature via inverse modeling using Raman Lidar and microwave radiometry
P2-WP2-9	Q. Hu, P. Goloub, O. Dubovik, T. Podvin, I. Veselovskii, A. Lopatin, B. Torres, D. Tanré, C. Deroo, V. Bovchaliuk, T. Lapyonok, F. Ducos, D. Fuertes, A. Diallo	The application of multi-wavelength Raman LiDAR in SHADOW-2 campaign

P2-WP2-10	H. Baars, T. Kanitz, R. Engelmann, D. Althausen, B. Heese, M. Komppula, J. Preißler, M. Tesche, A. Ansmann, U. Wandinger, J. H. Lim, J. Y. Ahn, I. S. Stachlewska, V. Amiridis, E. Marinou, P. Seifert, J. Hofer, A. Skupin, F. Schneider, S. Bohlmann, A. Foth, S. Bley, A. Pfüller, E. Giannakaki, H. Lihavainen, Y. Viisanen, R. K. Hooda, S. Pereira, D. Bortoli, F. Wagner, I. Mattis, L. Janicka, K. M. Markowicz, P. Achtert, P. Artaxo, T. Pauliquevis, R. A. F. Souza, V. P. Sharma, P. G. van Zyl, J. P. Beukes, J. Y. Sun, E. G. Rohwer, R. Deng, R. E. Mamouri, and F. Zamorano	Statistical results of vertical aerosol distribution within PollyNET
P2-WP2-11	I. S. Stachlewska, E. Marinou, R. Engelmann, M. Costa-Surós, M. Kottas, H. Baars, L. Janicka, S. Solomos, B. Heese, W. Kumala, A. Tsekeri, I. Biniotoglou, K. M. Markowicz, V. Amiridis, D. Balis, D. Althausen, U. Wandinger, and A. Ansmann	Wavelength dependent near-range lidar profiling of smog aerosol over Athens
P2-WP2-12	R. F. Banks, J. M. Baldasano, M. Pandolfi, <u>A. Comerón</u> , and M. Sicard	Improved boundary-layer height monitoring over Barcelona for validation of NWP model simulations
P2-WP2-13	N. Papagiannopoulos, G. D'Amico, A. Giunta, G. Pappalardo, L. Alados-Arboledas, A. Amodeo, L. Belegante, M. Iarlori, D. Lange, R.E Mamouri, D. Nicolae, P. Kokkalis, J.L. Guerrero Rascado, V. Rizi, M. Sicard, D. Bortoli, L. Mona	Aerosol classification using earlinet measurements: multiple types scenario at continental scale during summer 2012 intensive observational period
P2-WP2-14	<u>L. Ilic</u> , M. Kuzmanoski, Z. Mijic	Analysis of the planetary boundary layer diurnal cycle and elevated aerosol layer height using lidar measurements in Belgrade

P2-WP3-1	<u>M. Ealo</u> , A. Alastuey, A. Ripoll, N. Pérez, M.C. Minguillón, X. Querol, and M. Pandolfi	Integrating aerosol optical and chemical properties depending on composition and sources
P2-WP3-2	<u>M. Ealo</u> , M. Pandolfi, A. Ripoll, N. Pérez, X. Querol, and A. Alastuey	Aircraft measurements of aerosol optical properties in NE Spain
P2-WP3-3	<u>E. Alonso Blanco</u> , F. J. Gómez Moreno, M. Becerril Valle, E. Coz Diego, M. Pujadas Cordero, L. Nuñez Marti, P. Gómez and B. Artíñano Rodríguez De Torres.	Aerosol shrinkage and hygroscopicity properties in the Madrid urban atmosphere
P2-WP3-4	<u>A. del Águila</u> , G. Titos, J.A. Casquero-Vera, A. Cazorla, H. Lyamani, G. Mocnik, Foyo-Moreno, F.J. Olmo and L. Alados-Arboledas	Spatial and temporal variability of absorbing aerosols and their spectral dependence in Granada
P2-WP3-5	<u>S. Reimann</u> , A. Claude, M. Hill, A.-M. Fieraa, C. Plass-Dülmer.	Presentation of a VOC data submission tool under EBAS
P2-WP3-6	<u>M. M. Twigg</u> , J. Kentisbeer, S.R, Leeson, B. Langford, E. Nemitz, J.Dernie, T. Davies, C.F. Braban, D. Leaver	Auchencorth Moss: Progress contributing to ACTRIS NA3 measurements
P2-WP3-7	<u>S. Romano</u> , M. Calvello, F. Esposito, G. Pavese, M. R. Perrone	Nephelometer and aethalometer measurements at Lecce, Italy
P2-WP3-8	<u>J. Sciare</u> , M. Pikridas, S. Kleanthous, A. Apostolou, M. Argyrides, D. Baisnée, S. Bezantakos, G. Biskos, B. Bonsang, T. Bourriane, R. Calmer, A. Culot, C. Debevec, F. Dulac, V. Gaudion, P. Goloub, V. Gros, E. Hamonou, I. Jankowiak, C. Keleshis, N. Locoge, M. Mallet, N. Mihalopoulos, D. Picard, G. Roberts, R. Sarda-Estève, S. Sauvage, K. Sellegri, and M. Vrekoussis	The Agia Marina Xyliatou Observatory: A remote supersite in Cyprus to monitor changes in the atmospheric composition of the Eastern Mediterranean and Middle East
P2-WP3-9	<u>A. Claude</u> , R. Holla, D. Kubistin, K. Michl, E. Tensing, and C. Plass-Duelmer	Reactive gases QA/QC: Measurements of target gases,
P2-WP3-10	<u>R. Holla</u> , S. Gilge, U. Frieß, I. Mattis, F. Wagner	NO ₂ Intercomparison Experiment and Long-Term Validation of MAX-DOAS NO ₂ and AOD at MOHp
P2-WP3-11	<u>A. Bougiatioti</u> , P. Nikolaou, I. Stavroulas, G. Kouvarakis, A. Nenes, R. Weber, M. Kanakidou, and N. Mihalopoulos	Particle water and pH in the Eastern Mediterranean: Sources variability and implications for nutrients availability

P2-WP3-12	<u>A. Bougiatioti</u> , S. Bezantakos, I. Stavroulas, N. Kalivitis, P. Kokkalis, G. Biskos, N. Mihalopoulos, A. Papayannis, and A. Nenes	Influence of biomass burning on CCN number and hygroscopicity during summertime in the Eastern Mediterranean
P2-WP3-13	<u>E. Liakakou</u> , E. Gerasopoulos, I. Stavroulas, J. Sciare, D. Paraskevopoulou, V. Psiloglou, N. Mihalopoulos	Three-years absorption measurements at an urban background site in Athens
P2-WP3-14	<u>J. Schmale</u> , S. Henning, F. Stratmann, J.S. Henzing, G.P.A. Kos, P. Schlag, R. Holzinger, P.P. Aalto, H. Keskinen, M. Paramonov, L. Poulain, K. Sellegri, J. Ovadnevaite, M. Krüger, S. Carbone, J. Brito, A. Jefferson, J. Whitehead, K. Carslaw, S. S. Yum, M. Park, A. Kristensson, R. Fröhlich, E. Herrmann, E. Hammer, U. Baltensperger, M. Gysel and the CCN Team	Global synthesis of long-term cloud condensation nuclei observations --- CCN Team: G. Motos, N. Bukowiecki, A. Wiedensohler, A. Sonntag, W. Birmili, K.F.A. Frumau4 A. Kiendler-Scharr, M. Äijälä, L. Heikkinen, T. Petäjä, M. Kulmala, D. Picard, C. O'Dowd, J. Bialek, C. Pöhlker, H. Su, U.Pöschl, M. Andreae, P. Artaxo, H. Barbosa, J. Ogren, G. McFiggans, E. Swietlicki, G. Frank, Birgitta Svenningsson, Cerina Wittborn, A. Bougiatioti
P2-WP3-15	<u>M. Becerril</u> , E. Coz, S. N. Pandis, and B. Artíñano	A statistical method to determine the critical absorption Angström exponents for fossil fuel and biomass burning to estimate the source apportionment of black carbon
P2-WP3-16	<u>A. Mortier</u> , M. Schulz, CL. Myhre, W. Aas, and J. Griesfeller	Visualizing trends and time series from ACTRIS and models side by side