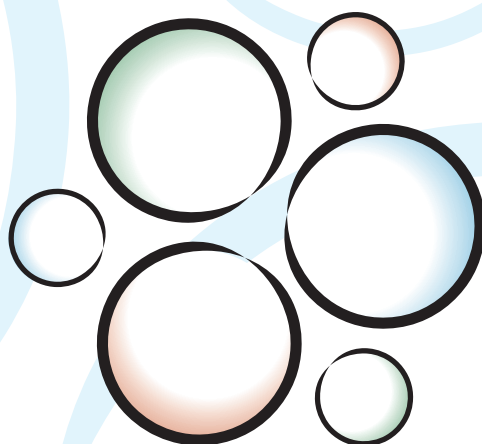


DUST



2021

Scientific Programme

**4th International Conference on
ATMOSPHERIC DUST**

4-7 October, 2021

Monopoli | Italy
Torre Cintola Conference Centre

PROGRAMME

3 Oct. Sun.

4 Oct. Mon.

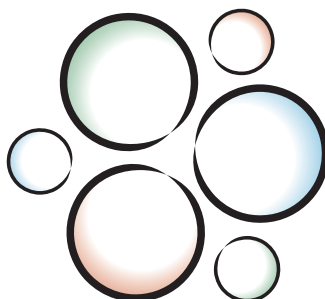
5 Oct. Tue.

6 Oct. Wed.

7 Oct. Thu.

09:00	09:00 CM02a	09:00 HE02a	09:00 IM01 IM02
10:00			
11:00	10:50 Break	10:40 Break	10:25 Break
12:00	11:10 CM02b	11:00 HE02b	11:00 MF07
13:00	12:40 Break	12:40 Break	12:20 Break
14:00			
15:00	14:30 MF01	14:30 HE02c	14:30 UD01
16:00	16:15 Break	15:45 Break	16:35 Break
17:00	16:40 CM01	16:10 HE04	17:00 HE01
18:00			
19:00			
20:00			
21:00	20:30 Welcome Drink / 22:30		20:30 Apulian wines tasting / 23:00

DUST



2021

Scientific Programme

IV INTERNATIONAL CONFERENCE ON ATMOSPHERIC DUST

Monopoli, Italy
October, 4-7, 2021



**Local Organising Committee**

Presidency: Saverio Fiore, IMAA-CNR, Potenza, IT
Secretariat: Mariolina Lamaddalena, AISA, Bari, IT
Treasury: Saverio Fiore, AISA, Bari, IT
Sponsoring & Fund Raising: Pietro P. Ragone, IMAA-CNR, Potenza, IT
Logistic Support: Antonio Lettino, IMAA-CNR, Potenza, IT
Technical Secretariat: Mariolina Lamaddalena, Digilabs, Bari, IT
Webmaster: Beppe Fiore, Digilabs, Bari, IT

International Scientific Committee
Rosa Caggiano, CNR-IMAA, IT
Anne E. Carey, The Ohio State University, USA
José A. Centeno, EHSC, USA
Sandra De Iaco, Unisalento, IT
Claudia Di Biagio, LISA, CNRS IPSL, FR
Saverio Fiore, CNR-IMAA, IT
Reto Gieré, University of Pennsylvania, USA
W. Berry Lyons, The Ohio State University, USA
Simone Lolli, CNR-IMAA, IT
Carlos Perez Garcia-Pando, Barcelona Supercomputing Center, ES
Daniel Perez-Ramirez, University of Granada, ES
Claire Ryder, University of Reading, UK
Manolis Romanias, IMT Lille Douai, FR
Rosa Sinisi, , CNR-IMAA, IT
Frédéric Thevenet, IMT Lille Douai, FR
Vito Summa, CNR-IMAA, IT
Ruggero Vigliaturo, IT

Organized by

Italian Association for the Study of Clays (AISA - onlus)
Institute of Methodologies for Environmental Analysis (IMAA) - CNR, IT

Financial/logistic support from

Italian Association for the Study of Clays (AISA - onlus)
Institute of Methodologies for Environmental Analysis (IMAA) - CNR, IT
Digilabs - Bari , IT



SESSIONS

CM01

IMPACT OF DUST ON TERRESTRIAL AND CRYOSPHERIC SYSTEMS: DEPOSITION AND GEOCHEMISTRY

CM02

INTERACTIONS BETWEEN DUSTS AND ATMOSPHERIC TRACE GASES: IMPACT ON ATMOSPHERE AND DUST SURFACE PROPERTIES

HE01

HEALTH IMPACTS OF ATMOSPHERIC DUST

HE02

ATMOSPHERIC AEROSOL PARTICLES: MONITORING, NATURAL AND ANTHROPOGENIC SOURCES IDENTIFICATION

HE04

SPATIO-TEMPORAL MODELING FOR ATMOSPHERIC PARTICLES DATA

IM01

IDENTIFICATION AND MONITORING OF ASH/DUST EVENTS FROM SPACE: ADVANCES AND FUTURE PERSPECTIVES

IM02

HIGH RESOLUTION ACTIVE OPTICAL REMOTE SENSING OF DUST AEROSOL LAYERS

MF01

MICROPHYSICAL, CHEMICAL AND OPTICAL PROPERTIES OF MINERAL DUST

MF07

ASIAN DUST

UD01

THE UNIVERSE OF DUST - OPEN SESSION

UD02

MINERAL DUST AND ANTHROPOGENIC PARTICLES AS CARRIERS OF VIRUSES AND BACTERIA



A series of horizontal dotted lines for writing, spanning the width of the page.



October 4	
8:50	Welcome to DUST2021 Hybrid Edition <i>Saverio Fiore</i>
Session CM02a - Chaired by Frédéric Thevenet Interactions Between Dusts and Atmospheric Trace Gases: Impact on Atmosphere and Dust Surface Properties	
9:00	Michel J. Rossi [Invited Lecture] Adsorption/Desorption of three organic semivolatiles on Arizona Test Dust and Kaolinite: Heterogeneous Kinetics and Langmuir Constants <i>Riccardo Iannarelli, Horst Pick, Christian Ludwig, Michel J. Rossi</i>
9:30	Manolis Romanias Glyoxal uptake on various mineral surrogates. A Knudsen flow reactor study. <i>Manolis Romanias, Antonia Zogka, Vassileios Papadimitriou, Frederic Thevenet, Michel Rossi</i>
9:50	Maya Abou-Ghanem The influence of organic coatings on the photochemical uptake of ozone by TiO ₂ <i>Maya Abou-Ghanem, Sarah Styler</i>
10:10	Frédéric Thevenet Gobi dust and acetic acid : uptake mechanism under environmental conditions <i>Xianjie Wang, Manolis Romanias, Frédéric Thevenet, Antoine Rousseau</i>
10:30	Ines Tomašek Interaction of volcanic ash with anthropogenic pollution: screening for presence of deleterious organic compounds on ash using the CALUX bioassay <i>Ines Tomašek, David Damby, Daniele Andronico, Peter Baxter, Imke Boonen, Philippe Claeys, Michael Denison, Claire Horwell, Matthieu Kervyn, Ulrich Kueppers, Manolis Romanias, Marc Elskens</i>
Break	
Session CM02b - Chaired by Manolis Romanias Interactions Between Dusts and Atmospheric Trace Gases: Impact on Atmosphere and Dust Surface Properties	
11:10	Tang Mingjin Hygroscopicity of fresh and aged mineral dust <i>Tang Mingjin</i>
11:30	Darya Urupina How relevant is to use mineral proxies to mimic the atmospheric reactivity of natural dust samples? A reactivity study using SO ₂ as probe molecule <i>Darya Urupina</i>
11:50	Daizhou Zhang Sulfate in Asian dust particles at desert and downwind areas: comparisons of past and recent results <i>Daizhou Zhang, Feng Wu, Tafeng Hu, Wenshuai Li, Yang Zhou, Junji Cao</i>
12:10	Jerome Lasne UV-Enhanced Uptake of SO ₂ on Icelandic Volcanic Dust: Photochemistry or Photocatalysis? <i>Jerome Lasne, Darya Urupina, Elena Maters, Pierre Delmelle, Manolis Romanias, Frederic Thevenet</i>
12:30 Poster	Manolis Romanias Understanding the atmospheric ageing of mineral dust during transport: A laboratory approach deploying CESAM atmospheric simulation chamber <i>Manolis Romanias, Joel Brito, MathieuCazaunau, EdouardPangui, Paola Formenti, ClaudiaDi Biagio, Véronique Riffault, Frederic Thevenet, Jean-FrançoisDoussin</i>
12:35 Poster	Antonia Zogka Heterogeneous Interaction of Glyoxal with Gobi desert dust under simulated atmospheric conditions <i>Antonia Zogka, Emmanouil Romanias, Frederic Thevenet, Paola Formenti, Yves Balkanski</i>
12:40	Pavla Dagsson-Waldhauserova Impacts of high latitude dust on atmosphere and climate <i>Pavla Dagsson-Waldhauserova, Members IceDust</i>
Break	



	<p style="text-align: center;">Session MF01 - Chaired by Gorden Videen Microphysical, Chemical and Optical Properties of Mineral Dust</p>
14:30	<p>Clarissa Baldo Chemical and optical properties of Icelandic dust <i>Clarissa Baldo, Paola Formenti, Sophie Nowak, Servanne Chevallier, Mathieu Cazaunau, Edouard Pangui, Claudia Di Biagio, Jean-Francois Doussin, Konstantin Ignatyev, Pavla Dagsson-Waldhauserova, Olafur Arnalds, A. Robert MacKenzie, Zongbo Shi</i></p>
14:50	<p>Lise Deschutter Optical properties of Gobi dust and its pure compounds: experimental extinction spectra and complex refractive indices determination. <i>Lise Deschutter, Hervé Herbin, Denis Petitprez</i></p>
15:10	<p>Khanneh Wadinga Fomba Phosphorus speciation in Namib desert dust particles <i>Khanneh Wadinga Fomba, Hartmut Herrmann</i></p>
15:30	<p>Romain Ceolato Multispectral small-angle light-scattering by volcanic ash particles from Popocatepetl <i>Romain Ceolato, Killian Aleau, Lucas Paulien, Edmundo Reynoso-Lara, Matthew J. Berg</i></p>
15:50	<p>Jessica Arnold Active Orientation Control of Optically Trapped Airborne Microparticles <i>Jessica Arnold, Aimable Kalume, Gorden Videen, Yong-Le Pan, Alycia Weinberger</i></p>
Poster 16:10	<p>Benedetto De Rosa Determination of saharan dust properties observed in Potenza by the multi-wavelength Raman lidar musa in June 2021 <i>Benedetto De Rosa, Lucia Mona, Simone Lalli, Aldo Amodeo, Nikolaos Papagiannopoulos, Michail Mytilinaios, Donato Summa</i></p>
	Break
	<p style="text-align: center;">Session CM01- Chaired by Berry Lyons Impact of Dust on Terrestrial and Cryospheric Systems: Deposition and Geochemistry</p>
16:40	<p>Pey Jorge Geochemistry and sources of North-African dust: results from the DONAIRE aerosol deposition network in south-western Europe <i>Pey Jorge, Larrasoaña Juan Cruz, Reyes Jesús, Pérez Noemí, Cerro José Carlos, Castillo Sonia, Mata María Pilar, Orellana-Macias José María, Causapé Jesús, Valero-Garcés Blas L., Oliva-Urcia Belén, Santos-González Javier, González-Gutiérrez Blanca</i></p>
17:00	<p>Sonia Castillo Quantifying Deposition Fluxes in Two National Parks with Contrasting African Dust Influence: The North and the South of the Iberian Peninsula <i>Castillo Sonia, Cazorla Alberto, Alados-Arboledas Lucas, Pey Jorge</i></p>
17:20	<p>Anika Rohde Impacts of snow-darkening due to Saharan dust during an intense dust deposition event across Eurasia <i>Anika Rohde, Vogel Heike, Sven Werchner, Gholamali Hoshyaripour, Julia Bruckert, Bernhard Vogel</i></p>
17:40	<p>Federica Bruschi Chemical and physical characterization of the seasonal snowpack (2017-2021) at Calderone Glacier (Gran Sasso d'Italia) <i>Federica Bruschi, Beatrice Moroni, Roberta Selvaggi, Paola Gravina, Chiara Petroselli, Massimo Pecci, Pinuccio D'Aquila, Paolo Tuccella, Edoardo Raparelli, Andrea Spolaor, Jacopo Gabrieli, Giulio Esposito, David Cappelletti</i></p>
18:00	<p>Tatiana Prokofeva Solid atmospheric fallouts as a substrate for urban soil formation (a case study in Moscow, Russia) <i>Tatiana Prokofeva, Sergei Shoba, Vasilij Shishkov</i></p>
Poster 18:20	<p>Blas Valero Garcés Looking for Holocene Pyrenean archives of Saharan dust deposition: the Arxuri Peatbog and the Marbore Lake <i>Blas Valero Garcés, Juan Pablo Corella, David Elustondo, Maria Pilar Mata Campo, Marcel Galofré, Francisco Javier Martín RodríguezJorge Pey</i></p>



October 5	
Session HE02a - Chaired by Rosa Sinisi Atmospheric Aerosol Particles: Monitoring, Natural and Anthropogenic Sources Identification	
9:00	Valentina Catanzaro Impact of dust outbreaks on particle mass concentrations at the surface during the Covid-19 lockdown measures over South-Eastern Italy <i>Valentina Catanzaro, Salvatore Romano, Maria Rita Perrone, Fabio Paladini</i>
9:20	Nabil Deabji Mineral dust influence on the background aerosol chemical composition in Northern Africa at high-altitude <i>Nabil Deabji, Fomba Kanneh Wadinga, dos Santos Souza Eduardo José, Herrmann Hartmut</i>
9:40	Marius - Emilian Kovacs How does it affect the health status of the population according to the particle size classes of dust particles in the urban area of an average city in Romania <i>Marius - Emilian Kovacs, Angelica - Nicoleta Calamar, Lorand Toth, Alexandru - Florin Simion</i>
10:00	Tesleem Olalekan Kolawole Assessment of PM _{2.5} and PM ₁₀ pollution around a scrap-metal recycling industrial area of Nigeria <i>Tesleem Olalekan Kolawole, K. W Fomba, H. Herrmann, G. C Ezeh, A. S. Olatunji</i>
10:20	Oriol Teixido Impact of dust aerosols on air quality during COVID-19 lockdown in Abu Dhabi (United Arab Emirates) <i>Oriol Teixido, Diana Francis, Hussein Hamed, Ruqaya Mohamed</i>
Break	
Session HE02b - Chaired by Rosa Sinisi Atmospheric Aerosol Particles: Monitoring, Natural and Anthropogenic Sources Identification	
11:00	Matic Ivančič Determination of high-time resolution mineral dust concentration in real-time by optical absorption measurements <i>Matic Ivančič, Irena Ježek, Martin Rigler, Asta Gregorič, Bálint Alföldy, Rok Podlipec, Luka Drinovec, Michael Pikridas, Florin Unga, Jean Sciare, Jesus Yus-Diez, Marco Pandolfi, Andres Alastuey, Griša Močnik</i>
11:20	Maria Gavrouzou Aerosol-Cloud interactions and Temperature Inversions during Dust Aerosol Episodes in the Mediterranean Basin. The case study of 16-18 June 2016 <i>Maria Gavrouzou, Nikos Hatzianastassiou, Antonis Gkikas, Marios-Bruno Korras-Carraca, Nikos Michalopoulos</i>
11:40	Larrasoaña Juan Cruz Magnetic characterization of natural and anthropogenic atmospheric deposition over southwestern Europe; results from the DONAIRE network <i>Larrasoaña Juan Cruz, Pey Jorge, Zhao Xiang, Heslop David, Mochales Tania, Mata María Pilar, Beamud Elisabet, Reyes Jesús, Cerro José Carlos, Pérez Noemí, Castillo Sonia</i>
12:00	Matthew Berg Studying Coarse-Mode Dust Aerosols with Digital Holography from a UAV <i>Matthew Berg</i>
12:20	Monika Ogrizek Green method for determination of metal content in PM deposited on quartz fibre filter: LA-ICPMS <i>Monika Ogrizek, Martin Šala, Ana Kroflič</i>
Break	
Session HE02c - Chaired by Rosa Caggiano Atmospheric Aerosol Particles: Monitoring, Natural and Anthropogenic Sources Identification	
14:30	Paola Cirelli Direct measurement of air particulate matter filter elemental composition <i>Paola Cirelli, Fabjola Bilo, Laura Borgese</i>
14:50	Jelena Krneta Nikolic Activity concentration of ²¹⁰ Pb in aerosol in Serbia in the period of 2014-2020 and the comparison between results from urban and rural sampling stations <i>Jelena Krneta Nikolic, Milica Rajacic, Dragana Todorovic, Ivana Vukanac, Gordana Pantelic, Marija Jankovic</i>
15:10	Chen Weidong Photoacoustic spectroscopy for filter-free measurement of aerosol particle light absorption <i>Wang Gaoxuan, Deboudt Karine, Flament Pascal, Petitprez Denis, Crumeyrolle Suzanne, Sigrist Markus, Venables Dean, Chen Weidong</i>



15:30 Poster	W. Berry Lyons A Preliminary analysis of urban dust samples from the Ohio State University Campus, Columbus, OH, USA <i>Ruixuan Ding, Susan Welch, Julia Sheets, W. Berry Lyons</i>
15:35 Poster	Davide Ciniglia LIBS and TXRF measurements for metals concentration analysis in aerosols <i>Davide Ciniglia, Laura Borgese, Roberto Dondè, Maria Grazia Perrone, Marco Zonca, Paolo Lopinto, De Iulius Silvana</i>
15:40 Poster	Antonio Lettino Morphological features and elemental composition of PM1 aerosol particles: insights on natural and anthropic sources <i>Antonio Lettino, Rosa Caggiano, Serena Sabia, Rosa Sinisi, Antonio Speranza, Vito Summa</i>
Break	
Session HE04 - Chaired by Sandra De Iaco Spatio-Temporal Modeling for Atmospheric Particles Data	
16:10	Chaofan Li <i>SmartAQnet 2020: A New Open Urban Air Quality Dataset</i> <i>Chaofan Li, Matthias Budde, Paul Tremper, Till Riedel, Klaus Schäfer, Johannes Riesterer, Johanna Redelstein, Erik Petersen, Mohamed Khedr, Xiangsheng Liu, Marcel Köpke, Kowalski Michal, Markus Pesch, Johannes Werhahn, Markus Hank, Andreas Philipp, Josef Cyrys, Jürgen Schnelle-Kreis, Hans Grimm, Volker Ziegler, Anette Peters, Stefan Emeis</i>
16:30	Daniel Lacks <i>Effects of particle charge and electrostatic forces on particle size distributions in long-range dust transport</i> <i>Daniel Lacks, Joseph Toth, Siddharth Rajupet, Mohan Sankaran</i>
16:50	Salvador Pedro <i>Characterization of dynamic and thermodynamic features of African dust outbreaks over the Iberian Peninsula and the Balearic Islands: trend analysis for the 1948-2020 period</i> <i>Salvador Pedro, Pey Jorge, Pérez Noemí, Querol Xavier, Artiñano Begoña</i>
17:10	Sabrina Maggio <i>Air quality and pollution in Apulia region: an analysis by a multilevel approach</i> <i>Sabrina Maggio, Sandra De Iaco</i>
17:30	Gizem Tuna Tuygun <i>ESTIMATION OF GROUND-LEVEL PM2.5 CONCENTRATIONS WITH MERRA-2 AEROSOL DIAGNOSTICS OVER THE NORTHWESTERN REGION OF TURKEY</i> <i>Gizem Tuna Tuygun, Serdar Gündoğdu, Tolga Elbir</i>
17:45	Gizem Tuna Tuygun <i>ESTIMATING INTRA-DAILY PM10 CONCENTRATIONS OVER THE NORTH-WESTERN REGION OF TURKEY BASED ON MODIS AOD USING RANDOM FOREST APPROACH</i> <i>Gizem Tuna Tuygun, Tolga Elbir</i>
18:00 Poster	Nadia Gammoudi <i>Source apportionment simulation of wind-blown Saharan dust over Central Europe using Hysplit model.</i> <i>Nadia Gammoudi, Kovacs Janos, Varga Gyorgy</i>



October 6	
	<i>Invited Lecture</i> <i>Chair: Ambra M. Fiore</i>
9:00	José A. Centeno [Invited Lecture - Out of Program] Atmospheric dust in Medical Geology <i>José A. Centeno</i>
10:00	Excursion to Alberobello & Polignano



October 7	
Session IM01 IM02 - Chaired by Simone Lolli Identification and Monitoring of Ash/Dust Events From Space: Advances and Future Perspectives High Resolution Active Optical Remote Sensing of Dust Aerosol Layers	
9:00	Gorden Videen Using models to retrieve dust properties <i>Gorden Videen, Jessica Arnold, Alycia Weinberger, Evgenij Zubko</i>
9:20	Hugues Brenot Selective detection of dust or ash clouds from hyperspectral (LEO) and broadband (GEO) sensors in the context of the SACS/ALARM early warning system <i>Hugues Brenot, Nicolas Theys, Lieven Clarisse, Pierre de Buyl, Nicolas Clerbaux, Michel Van Roozendaal, Manuel Soler</i>
9:40	Simone Lolli Determining dust radiative effects in the Mediterranean and Saharan regions by satellite lidar means <i>Simone Lolli, Tony C. Landi, Paolo Bonasoni</i>
10:00	Michail Mytilinaios Evaluation of dust model reanalysis using lidar dust extinction profiles <i>Michail Mytilinaios, Lucia Mona, Sara Basart, Enza Di Tomaso, Oriol Jorba, Carlos Pérez García-Pando, Emmanouil Proestakis, Eleni Marinou, Vassilis Amiridis</i>
10:20 Poster	Zahari Peshev Lidar study of two winter and spring saharan dust outbreaks over Sofia, Bulgaria, in 2021 <i>Atanaska Deleva, Zahari Peshev, Liliya Vulkova, Tanja Dreischi</i>
Break	
Session MF07 - Chaired by Jessica Arnold Asian Dust	
11:00	Balint Alfoldy Optical absorption properties of mineral dust particles generated by storm events in a desert environment <i>Balint Alfoldy, Mohamed Mahfouz, Matic Ivancic, Asta Gregoric, Martin Rigler</i>
11:20	Mira Haddad Simulation for the Identification of Optimal Vegetation Covers to Improve the Conditions at the Desiccated Aral Seabed and Reduce the Impacts of Sand and Dust Storms in Uzbekistan <i>Mira Haddad, Akmal Akramkhanov, Stefan Strohmeier, Yigezu Yigezu, Timon Smeets, Geert Sterk, Abduvokhid Zakhadullaev, Ioannis Chaniotis, Platon Patlakas, Christos Stathopoulos, George Kallos</i>
11:40	Mira Haddad Modelling the effect of water harvesting structures on aeolian erosion in the Jordanian Badia <i>Anneloes Noordhoff, Geert Sterk, Stefan Strohmeier, Mira Haddad, Christos Stathopoulos, Platon Patlakas, Ioannis Chaniotis, George Kallos</i>
12:00	Arya V B Possible indirect effect of dust aerosols during monsoon breaks over India <i>Arya V B, Sajani Surendran, Rajendran K Avirajan</i>
Break	
Session UD01 - Chaired by Saverio Fiore Open session: The Universe of Dust	
14:30	Diana Jordanova High-resolution magnetic archive of the dynamic interplay of past climatic and dust sedimentation changes during the middle and late Pleistocene in central North Bulgaria, lower Danube area <i>Diana Jordanova, Neli Jordanova, Christian Laag, France Lagroix, Yohan Guyodo, Bozhrurka Georgieva, Daniel Ishlyamski</i>
14:50	Miriam Chacón-Mateos Evaluation of Low-Cost Dryers for Low-Cost Optical Particle Counters <i>Miriam Chacón-Mateos, Clémence Aubert, Bernd Laquai, Ulrich Vogt, Cosima Stubenrauch</i>
15:10	Russu Berlanga Andres DUST SENSOR / EXOMARS'22: IN-SITU MEASUREMENT OF DUST SIZE DISTRIBUTION ON MARS SURFACE <i>Russu Berlanga Andres, Cortes Martinez Francisco, De Castro Antonio J., López-Ongila Celia, Garcia Ares Ernesto, Lopez Martinez Fernando, Plaza Arenas Javier, Ramirez Barcenás Alberto, Paz Herrera Rolando, Serrano Gordo Angel, Fernandez Martin David, Lopez Bejar Alba</i>



15:30	Mattia Fragola Saharan Dust Impact on Airborne Bacteria, Plants and Fungal Spores from a Coastal Site of the Central Mediterranean <i>Mattia Fragola, Maria Rita Perrone, Pietro Alifano, Adelfia Talà, Salvatore Romano</i>
15:50	Eyal Rahav Response of bacterial communities to rainwater additions in the oligotrophic SE Mediterranean coast; Experimental and in-situ observations <i>Eyal Rahav, Barak Herut</i>
16:10	Barak Herut Effect of dust deposition on primary productivity in the offshore water of the SE Mediterranean Sea <i>Barak Herut, Eyal Rahav, Daniel Sher</i>
16:30 Poster	Tatiana Prokofeva ANTIBIOTIC-RESISTANT ESCHERICHIA COLI STRAINS ISOLATED FROM URBAN ATMOSPHERIC DUST AEROSOLS: A POTENTIAL IMPACT ON HUMAN HEALTH <i>Anna Glushakova, Tatiana Prokofeva, Ludmila Lysak</i>
Break	
Session HE01 - Chaired by José Antonio Centeno Health Impacts of Atmospheric Dust	
17:00	Neli Jordanova Road dust as sink for anthropogenic pollution in towns near the largest copper smelter in SE Europe – combined magnetic and geochemical study <i>Neli Jordanova, Diana Jordanova, Emilia Tcherkezova, Bozhurka Georgieva, Daniel Ishlyanski</i>
17:20	Sarah A. Styler Singlet oxygen production by urban road dust: implications for pollutant fate <i>Sarah A. Styler, Alexandra I. Burnett, Clare L. S. Wiseman</i>
17:40	Eduardo José dos Santos Souza Assessment of oxidative potential assays on mineral dust samples <i>Eduardo José dos Santos Souza, Kanneh Wadinga Fomba, Nabil Deabji, Hartmut Herrmann</i>
18:00	Ines Tomašek Investigation of a lung fluid leachate method to assess inhalation hazards of volcanic ash <i>Ines Tomašek, David Damby, Carol Stewart, Claire Horwell, Geoff Plumlee, Christopher Ottley, Pierre Delmelle, Suzette Morman, Sofian El Yazidi, Matthieu Kervyn, Marc Elskens, Martine Leermakers, Philippe Claeys</i>
18:20 Poster	Roberto Buccione Natural and anthropogenic sources of trace elements in the atmosphere and their influence on human health <i>Roberto Buccione, Giovanna Rizzo, Michele Paternoster</i>
18:30	Final Remarks See you @ DUST 2023



Alphabetical directory of Oral & Poster Presentations - By Presenting Author

Disclaimer: The names of the Presenting Authors are reported as they had been inserted in the abstract submission form

Abou-Ghanem Maya THE INFLUENCE OF ORGANIC COATINGS ON THE PHOTOCHEMICAL UPTAKE OF OZONE BY TiO ₂	Page 1
Alfoldy Balint OPTICAL ABSORPTION PROPERTIES OF MINERAL DUST PARTICLES GENERATED BY STORM EVENTS IN A DESERT ENVIRONMENT	Page 2
Andres Russu Berlanga DUST SENSOR / EXOMARS'22: IN-SITU MEASUREMENT OF DUST SIZE DISTRIBUTION ON MARS SURFACE	Page 3
Arnold Jessica ACTIVE ORIENTATION CONTROL OF OPTICALLY TRAPPED AIRBORNE MICROPARTICLES	Page 4
Baldo Clarissa CHEMICAL AND OPTICAL PROPERTIES OF ICELANDIC DUST	Page 5
Berg Matthew STUDYING COARSE-MODE DUST AEROSOLS WITH DIGITAL HOLOGRAPHY FROM A UAV	Page 6
Brenot Hugues SELECTIVE DETECTION OF DUST OR ASH CLOUDS FROM HYPERSPECTRAL (LEO) AND BROADBAND (GEO) SENSORS IN THE CONTEXT OF THE SACS/ALARM EARLY WARNING SYSTEM	Page 7
Bruschi Federica CHEMICAL AND PHYSICAL CHARACTERIZATION OF THE SEASONAL SNOWPACK (2017-2021) AT CALDERONE GLACIER (GRAN SASSO D'ITALIA)	Page 8
Buccione Roberto NATURAL AND ANTHROPOGENIC SOURCES OF TRACE ELEMENTS IN THE ATMOSPHERE AND THEIR INFLUENCE ON HUMAN HEALTH	Page 9
Castillo Sonia QUANTIFYING DEPOSITION FLUXES IN TWO NATIONAL PARKS WITH CONTRASTING AFRICAN DUST INFLUENCE: THE NORTH AND THE SOUTH OF THE IBERIAN PENINSULA	Page 56
Catanzaro Valentina IMPACT OF DUST OUTBREAKS ON PARTICLE MASS CONCENTRATIONS AT THE SURFACE DURING THE COVID-19 LOCKDOWN MEASURES OVER SOUTH-EASTERN ITALY	Page 10
Ceolato Romain MULTISPECTRAL SMALL-ANGLE LIGHT-SCATTERING BY VOLCANIC ASH PARTICLES FROM POPOCATEPETL	Page 11
Chacón-Mateos Miriam EVALUATION OF LOW-COST DRYERS FOR LOW-COST OPTICAL PARTICLE COUNTERS	Page 12
Ciniglia Davide LIBS AND TXRF MEASUREMENTS FOR METALS CONCENTRATION ANALYSIS IN AEROSOLS	Page 13
Cirelli Paola DIRECT MEASUREMENT OF AIR PARTICULATE MATTER FILTER ELEMENTAL COMPOSITION	Page 14
De Rosa Benedetto DETERMINATION OF SAHARAN DUST PROPERTIES OBSERVED IN POTENZA BY THE MULTI-WAVELENGTH RAMAN LIDAR MUSA IN JUNE 2021	Page 16
Deabji Nabil MINERAL DUST INFLUENCE ON THE BACKGROUND AEROSOL CHEMICAL COMPOSITION IN NORTHERN AFRICA AT HIGH-ALTITUDE	Page 17
Deschutter Lise OPTICAL PROPERTIES OF GOBI DUST AND ITS PURE COMPOUNDS: EXPERIMENTAL EXTINCTION SPECTRA AND COMPLEX REFRACTIVE INDICES DETERMINATION.	Page 19
dos Santos Souza Eduardo José ASSESSMENT OF OXIDATIVE POTENTIAL ASSAYS ON MINERAL DUST SAMPLES	Page 21
Fomba Khanneh Wadinga PHOSPHORUS SPECIATION IN NAMIB DESERT DUST PARTICLES	Page 22
Fragola Mattia SAHARAN DUST IMPACT ON AIRBORNE BACTERIA, PLANTS AND FUNGAL SPORES FROM A COASTAL SITE OF THE CENTRAL MEDITERRANEAN	Page 23
Gammoudi Nadia SOURCE APPORTIONMENT SIMULATION OF WIND-BLOWN SAHARAN DUST OVER CENTRAL EUROPE USING HYSPLIT MODEL.	Page 24
Gavrouzou Maria AEROSOL-CLOUD INTERACTIONS AND TEMPERATURE INVERSIONS DURING DUST AEROSOL EPISODES IN THE MEDITERRANEAN BASIN. THE CASE STUDY OF 16-18 JUNE 2016	Page 26
Haddad Mira SIMULATION FOR THE IDENTIFICATION OF OPTIMAL VEGETATION COVERS TO IMPROVE THE CONDITIONS AT THE DESICCATED ARAL SEABED AND REDUCE THE IMPACTS OF SAND AND DUST STORMS IN UZBEKISTAN	Page 28
Haddad Mira MODELLING THE EFFECT OF WATER HARVESTING STRUCTURES ON AEOLIAN EROSION IN THE JORDANIAN BADIA	Page 47
Herut Barak EFFECT OF DUST DEPOSITION ON PRIMARY PRODUCTIVITY IN THE OFFSHORE WATER OF THE SE MEDITERRANEAN SEA	Page 29
Ivančić Matic DETERMINATION OF HIGH-TIME RESOLUTION MINERAL DUST CONCENTRATION IN REAL-TIME BY OPTICAL ABSORPTION MEASUREMENTS	Page 31



Jordanova Diana HIGH-RESOLUTION MAGNETIC ARCHIVE OF THE DYNAMIC INTERPLAY OF PAST CLIMATIC AND DUST SEDIMENTATION CHANGES DURING THE MIDDLE AND LATE PLEISTOCENE IN CENTRAL NORTH BULGARIA, LOWER DANUBE AREA	Page 32
Jordanova Neli ROAD DUST AS SINK FOR ANTHROPOGENIC POLLUTION IN TOWNS NEAR THE LARGEST COPPER SMELTER IN SE EUROPE – COMBINED MAGNETIC AND GEOCHEMICAL STUDY	Page 33
Jorge Pey GEOCHEMISTRY AND SOURCES OF NORTH-AFRICAN DUST: RESULTS FROM THE DONAIRE AEROSOL DEPOSITION NETWORK IN SOUTH-WESTERN EUROPE	Page 34
Juan Cruz Larrasoña MAGNETIC CHARACTERIZATION OF NATURAL AND ANTHROPOGENIC ATMOSPHERIC DEPOSITION OVER SOUTHWESTERN EUROPE; RESULTS FROM THE DONAIRE NETWORK	Page 35
Kolawole Tesleem Olalekan ASSESSMENT OF PM _{2.5} AND PM ₁₀ POLLUTION AROUND A SCRAP-METAL RECYCLING INDUSTRIAL AREA OF NIGERIA	Page 36
Kovacs Marius - Emilian HOW DOES IT AFFECT THE HEALTH STATUS OF THE POPULATION ACCORDING TO THE PARTICLE SIZE CLASSES OF DUST PARTICLES IN THE URBAN AREA OF AN AVERAGE CITY IN ROMANIA	Page 37
Krneta Nikolic Jelena ACTIVITY CONCENTRATION OF 210PB IN AEROSOL IN SERBIA IN THE PERIOD OF 2014-2020 AND THE COMPARISON BETWEEN RESULTS FROM URBAN AND RURAL SAMPLING STATIONS	Page 38
Lacks Daniel EFFECTS OF PARTICLE CHARGE AND ELECTROSTATIC FORCES ON PARTICLE SIZE DISTRIBUTIONS IN LONG-RANGE DUST TRANSPORT	Page 39
Lasne Jerome UV-ENHANCED UPTAKE OF SO ₂ ON ICELANDIC VOLCANIC DUST: PHOTOCHEMISTRY OR PHOTOCATALYSIS?	Page 40
Letтино Antonio MORPHOLOGICAL FEATURES AND ELEMENTAL COMPOSITION OF PM ₁ AEROSOL PARTICLES: INSIGHTS ON NATURAL AND ANTHROPIC SOURCES	Page 41
Li Chaofan SMARTAQNET 2020: A NEW OPEN URBAN AIR QUALITY DATASET	Page 42
Lolli Simone DETERMINING DUST RADIATIVE EFFECTS IN THE MEDITERRANEAN AND SAHARAN REGIONS BY SATELLITE LIDAR MEANS	Page 55
Lyons W. Berry A PRELIMINARY ANALYSIS OF URBAN DUST SAMPLES FROM THE OHIO STATE UNIVERSITY CAMPUS, COLUMBUS, OH, USA	Page 20
Maggio Sabrina AIR QUALITY AND POLLUTION IN APULIA REGION: AN ANALYSIS BY A MULTILEVEL APPROACH	Page 43
Mingjin Tang HYGROSCOPICITY OF FRESH AND AGED MINERAL DUST	Page 44
Mytilinaios Michail EVALUATION OF DUST MODEL REANALYSIS USING LIDAR DUST EXTINCTION PROFILES	Page 45
Ogrizek Monika GREEN METHOD FOR DETERMINATION OF METAL CONTENT IN PM DEPOSITED ON QUARTZ FIBRE FILTER: LA-ICPMS	Page 48
Pedro Salvador CHARACTERIZATION OF DYNAMIC AND THERMODYNAMIC FEATURES OF AFRICAN DUST OUTBREAKS OVER THE IBERIAN PENINSULA AND THE BALEARIC ISLANDS: TREND ANALYSIS FOR THE 1948-2020 PERIOD	Page 49
Peshev Zahari LIDAR STUDY OF TWO WINTER AND SPRING SAHARAN DUST OUTBREAKS OVER SOFIA, BULGARIA, IN 2021	Page 18
Prokofeva Tatiana ANTIBIOTIC-RESISTANT ESCHERICHIA COLI STRAINS ISOLATED FROM URBAN ATMOSPHERIC DUST AEROSOLS: A POTENTIAL IMPACT ON HUMAN HEALTH	Page 27
Prokofeva Tatiana SOLID ATMOSPHERIC FALLOUTS AS A SUBSTRATE FOR URBAN SOIL FORMATION (A CASE STUDY IN MOSCOW, RUSSIA)	Page 50
Rahav Eyal RESPONSE OF BACTERIAL COMMUNITIES TO RAINWATER ADDITIONS IN THE OLIGOTROPHIC SE MEDITERRANEAN COAST; EXPERIMENTAL AND IN-SITU OBSERVATIONS	Page 51
Rohde Anika IMPACTS OF SNOW-DARKENING DUE TO SAHARAN DUST DURING AN INTENSE DUST DEPOSITION EVENT ACROSS EURASIA	Page 52
Romanias Manolis GLYOXAL UPTAKE ON VARIOUS MINERAL SURROGATES. A KNUDSEN FLOW REACTOR STUDY.	Page 53
Romanias Manolis UNDERSTANDING THE ATMOSPHERIC AGEING OF MINERAL DUST DURING TRANSPORT: A LABORATORY APPROACH DEPLOYING CESAM ATMOSPHERIC SIMULATION CHAMBER	Page 54
Rossi Michel J. ADSORPTION/DESORPTION OF THREE ORGANIC SEMIVOLATILES ON ARIZONA TEST DUST AND KAOLINITE: HETEROGENEOUS KINETICS AND LANGMUIR CONSTANTS	Page 30
Styler Sarah A. SINGLET OXYGEN PRODUCTION BY URBAN ROAD DUST: IMPLICATIONS FOR POLLUTANT FATE	Page 57
Teixido Oriol IMPACT OF DUST AEROSOLS ON AIR QUALITY DURING COVID-19 LOCKDOWN IN ABU DHABI (UNITED ARAB EMIRATES)	Page 58



Thevenet Frédéric GOBI DUST AND ACETIC ACID : UPTAKE MECHANISM UNDER ENVIRONMENTAL CONDITIONS	Page 67
Tomašek Ines INTERACTION OF VOLCANIC ASH WITH ANTHROPOGENIC POLLUTION: SCREENING FOR PRESENCE OF DELETERIOUS ORGANIC COMPOUNDS ON ASH USING THE CALUX BIOASSAY	Page 59
Tomašek Ines INVESTIGATION OF A LUNG FLUID LEACHATE METHOD TO ASSESS INHALATION HAZARDS OF VOLCANIC ASH	Page 60
Tuna Tuygun Gizem ESTIMATING INTRA-DAILY PM10 CONCENTRATIONS OVER THE NORTH-WESTERN REGION OF TURKEY BASED ON MODIS AOD USING RANDOM FOREST APPROACH	Page 61
Tuna Tuygun Gizem ESTIMATION OF GROUND-LEVEL PM2.5 CONCENTRATIONS WITH MERRA-2 AEROSOL DIAGNOSTICS OVER THE NORTHWESTERN REGION OF TURKEY	Page 62
Urupina Darya HOW RELEVANT IS TO USE MINERAL PROXIES TO MIMIC THE ATMOSPHERIC REACTIVITY OF NATURAL DUST SAMPLES? A REACTIVITY STUDY USING SO2 AS PROBE MOLECULE.	Page 63
V B Arya POSSIBLE INDIRECT EFFECT OF DUST AEROSOLS DURING MONSOON BREAKS OVER INDIA	Page 64
Valero Garcés Blas LOOKING FOR HOLOCENE PYRENEAN ARCHIVES OF SAHARAN DUST DEPOSITION: THE ARXURI PEATBOG AND THE MARBORE LAKE	Page 65
Videen Gorden USING MODELS TO RETRIEVE DUST PROPERTIES	Page 66
Weidong Chen PHOTOACOUSTIC SPECTROSCOPY FOR FILTER-FREE MEASUREMENT OF AEROSOL PARTICLE LIGHT ABSORPTION	Page 25
Zhang Daizhou SULFATE IN ASIAN DUST PARTICLES AT DESERT AND DOWNWIND AREAS: COMPARISONS OF PAST AND RECENT RESULTS	Page 68
Zogka Antonia HETEROGENEOUS INTERACTION OF GLYOXAL WITH GOBI DESERT DUST UNDER SIMULATED ATMOSPHERIC CONDITIONS	Page 69



A large area of the page is filled with a grid of small dots, intended for handwritten notes or a program schedule.

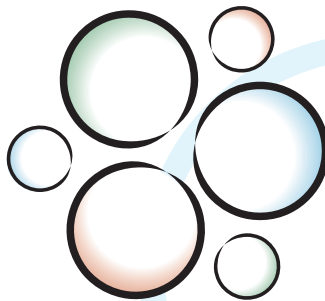


A large area of the page is filled with a grid of small dots, intended as a template for handwritten notes or a program schedule.



A large area of the page is filled with a grid of small dots, intended for handwritten notes or a program schedule.

DUST



2021

Organized by



Institute of Methodologies
for Environmental
Analysis



ENVIRONMENTAL
& Health Sciences
CONSORTIUM

With financial/logistic support from



Institute of Methodologies
for Environmental
Analysis

