



European Workshop on Atmospheric Dust

DRAFT Scientific Programme

20–22 April 2026 | Sandy Beach Hotel, Larnaca, Cyprus

*All regular contributions: 12 min presentation + 3 min discussion
Invited lectures: 45 min presentation + 15 min discussion*

Programme at a Glance

Monday, 20 April

Time	Morning	Time	Afternoon / Evening
09:00–09:30	Arrival & Registration	12:30–14:00	Lunch
09:30–10:00	Welcome	14:00–15:00	Session 3 – Fundamentals of Dust Microphysical Properties and Processes II
10:00–11:00	Session 1 – Fundamentals of Dust Microphysical Properties and Processes I	15:00–15:30	Coffee Break
11:00–11:30	Coffee Break	15:30–17:00	Session 4 – Dust Source Regions and Their Influence on Atmospheric Dust Properties II
11:30–12:30	Session 2 – Dust Source Regions and Their Influence on Atmospheric Dust Properties I		

All times refer to Cyprus summer time (EEST or UTC+3)

Tuesday, 21 April

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Morning		Afternoon / Evening	
Time		Time	
09:00–10:00	Invited Lecture – The Importance of Super-Coarse Dust (Claire Ryder)	12:30–14:00	Lunch
10:00–11:00	Session 5 – Dust in the Global Climate System I	14:00–15:00	Invited Lecture – Next generation Earth system modeling: desert dust at unprecedented detail (Martina Klose)
11:00–11:30	Coffee Break	15:00–15:30	Coffee Break
11:30–12:30	Session 6 – Remote Sensing and Observational Approaches I	15:30–17:00	Session 7 – Dust in the Global Climate System II
		20:00	Workshop Dinner – Vlachos Tavern

Wednesday, 22 April

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Morning		Afternoon / Evening	
Time		Time	
09:00–10:00	Invited Lecture – Dust mineralogical composition and its effects upon climate (Carlos Perez Garcia-Pando)	13:00–14:30	Lunch
10:00–11:15	Session 8 – Socio-Economic Impacts of Dust	14:30–15:30	Session 10 – Cross-cutting Processes and Emerging Topics
11:15–11:45	Coffee Break	15:30–16:00	Closing Remarks
11:45–13:00	Session 9 – Remote Sensing and Observational Approaches II		

Detailed Scientific Programme

Monday, 20 April 2026

Time	Speaker / Item	Title / Details
09:00–09:30	Arrival & Registration	
09:30–10:00	Jean Sciare (CARE-C Director) Franco Marengo (Dust-DN PI) Kostas Fragkos (Dust-DN PM) Johanne Ekue (DC)	Welcome address
SESSION 1 – Fundamentals of Dust Microphysical Properties and Processes I Chairs: Noor Ul Ain & Marcos Pérez Morán		
10:00–10:15	Balaji, A.	Experimental investigation of dust atmospheric settling velocity and orientation
10:15–10:30	Ahmadi, B.	An investigation of the impact of turbulence on the vertical transport of super-coarse and giant dust particles
10:30–10:45	Kholghi, A.	A coupled hydro-thermodynamic analysis of single-particle dynamics
10:45–11:00	Tsekeri, A.	Dust backscatter properties using realistic dust shapes
11:00–11:30	Coffee Break	
SESSION 2 – Dust Source Regions and Their Influence on Atmospheric Dust Properties I Chairs: Semontee Deb & Amirhosein Kholghi		
11:30–11:45	Sciare, J.	Are we missing a local source of dust at our ACTRIS national facilities?
11:45–12:00	Pérez Morán, M.	Aerosol sources of the central Mediterranean: dry deposition patterns seen through single-particle analyses
12:00–12:15	Francis, E.	Developing regional mineralogy map of ice nucleating dust particles
12:15–12:30	Mhawish, A.	Recent changes in aerosol types over the Middle East
12:30–14:00	Lunch	
SESSION 3 – Fundamentals of Dust Microphysical Properties and Processes II Chairs: Eleni Kolintziki & Ginés Garnés Morales		
14:00–14:15	Konoshonkin, A.	Light scattering by large dust particles within the physical optics and discrete dipole approximations
14:15–14:30	Kustova, N.	Light scattering by cosmic dust particles
14:30–14:45	Semwal, E.	Laboratory setup for investigation of the polarizing properties of natural mineral dust
14:45–15:00	Savva, A.	Desert dust microphysical properties utilizing GRASP algorithm from synergy of POLLYXT LIDAR & sun/sky photometer in Limassol, Cyprus
15:00–15:30	Coffee Break	
SESSION 4 – Dust Source Regions and Their Influence on Atmospheric Dust Properties II Chairs: Sai Amritha Kuttippurath & Babak Ahmadi		
15:30–15:45	Ain, N.	Particle size distribution and elemental composition of PM ₁₀ during dust events
15:45–16:00	Moncada, F.	Understanding the climate impact of anthropogenic land-use-driven dust emissions
16:00–16:15	Rosario, N.	Sensitivity of dust emissions to meteorological forcings in an agricultural land area: a case study in Sao Paulo, Brazil
16:15–16:30	Luís, D.	Dust aerosol atmospheric rivers affecting the Iberian Peninsula: characteristics and impacts on air quality
16:30–16:45	Wagner, R.	Recent change of global fire activity and its impact on the emission of fire-related dust emissions
16:45–17:00	Bona, Z.	Global dust estimation from novel space missions

Tuesday, 21 April 2026

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Time	Speaker / Item	Title / Details
09:00–10:00	Invited Lecture Claire Ryder <i>Chair: Kostas Fragkos</i>	The Importance of Super-Coarse Dust
SESSION 5 – Dust in the Global Climate System I Chairs: Evelin Francis & Miguel Huerta Gómez		
10:00–10:15	Deb, S.	Evaluation of WRF-CHEM aeolian dust emission and land surface models over the dust belt
10:15–10:30	Pacheco Bueno, N.F.	Assessing the ability of state-of-the-art atmospheric models to represent observed coarse dust
10:30–10:45	Kunze, P.	Global dust modeling: impact of grid resolution on dust-generating winds
10:45–11:00	Oppermann, T.	Sensitivities of mineral dust optical properties to surface roughness
11:00–11:30	Coffee Break	
SESSION 6 – Remote Sensing and Observational Approaches I Chairs: Zuhir Bona (DC3) & Nelson Fernando Pacheco Bueno (DC11)		
11:30–11:45	Brenot, H.	An efficient algorithm for continuous dust-hazard monitoring from geostationary IR imagers
11:45–12:00	Derimian, Y.	Community tool development for tables of aerosol and cloud optics
12:00–12:15	Marenco, F.	UAVs and remote sensing for satellite calibration
12:15–12:30	Kezoudi, M.	Microphysical and compositional differences between Saharan and Middle Eastern dust revealed by UAS observations over Cyprus
12:30–14:00	Lunch	
14:00–15:00	Invited Lecture Martina Klose <i>Chair: Franco Marenco</i>	Next generation Earth system modeling: desert dust at unprecedented detail
15:00–15:30	Coffee Break	
SESSION 7 – Dust in the Global Climate System II Chairs: Afroz Joudani & Ajatshatru Balaji		
15:30–15:45	Papetta, A.	Volume-to-extinction ratio: an important property of dust
15:45–16:00	Gautam, S.	Mineral dust and black carbon absorption and heating rates from urban to remote western Mediterranean sites
16:00–16:15	Hofmann, E.	Evaluation and validation of the integration of dust mineralogy into a global climate model
16:15–16:30	Kandler, K.	A field study on mineral dust in Iceland: temporal activity of source regions and the characterisation of dust emission drivers
16:30–16:45	Garnés Morales, G.	On the role of super-coarse dust in attenuating radiation: evidence from FENNEC 2012 aircraft observations
16:45–17:00	Ekue, J.	Modelling scattering properties of realistic dust
	 <p>Walking route: Sandy Beach Hotel → Vlachos Tavern (17 min, 1.2 km) — View on Google Maps</p>	
20:00	Workshop Dinner	Vlachos Tavern

Wednesday, 22 April 2026

Time	Speaker / Item	Title / Details
09:00–10:00	Invited Lecture Carlos Perez Garcia-Pando <i>Chair: Franco Marengo</i>	Dust Mineralogical Composition and Its Effects upon Climate
SESSION 8 – Socio-Economic Impacts of Dust Chairs: Kenneth M. Tschorn & Johanne Ayeley Ekue		
10:00–10:15	Kuttippurath, S.	Ceillometer-based assessment of mineral dust effects on aircraft engine performance in the Middle East
10:15–10:30	Jouzdati, A.	Modelling and assessment of the impact of atmospheric dust on solar resource for energy applications
10:30–10:45	Elms, J.	The atmospheric dust threat to civil aircraft engines
10:45–11:00	Rotherham, D.	The use of commercial aircraft-based instruments to predict impact of dust on aviation
11:00–11:15	Dacre, H.	Risk-based volcanic ash forecasting for aviation
11:15–11:45	Coffee Break	
SESSION 9 – Remote Sensing and Observational Approaches II Chairs: Francesco Moncada & Sai Amritha Kuttippurath		
11:45–12:00	Ryder, C.	Determining the vertical profile of dust from satellite observations and composition reanalyses
12:00–12:15	Derimian, Y.	Remote sensing of aerosol composition as implemented in the GRASP algorithm
12:15–12:30	Krüger, K.	Investigating aerosol conditions, water vapor distributions, and cloud properties across the tropical Atlantic with airborne LIDAR observations from the PERCUSION campaign
12:30–12:45	Kolintziki, E.	AEROTAPE: a novel technology for real time quantification and characterization of dust and its sources
12:45–13:00	Papetta, A.	Variability of dust optical properties during severe dust events over the Mediterranean
13:00–14:30	Lunch	
SESSION 10 – Cross-cutting Processes and Emerging Topics Chairs: Marcos Pérez Morán & Afroz Jouzdani		
14:30–14:45	Rosanka, S.	Influence of iron contained in dust on atmospheric oxidation
14:45–15:00	Tschorn, K.	UAV observations to reveal new insights into dust particle morphology and orientation
15:00–15:15	Huerta Gómez, M.	Interaction and absorption of UV solar radiation by atmospheric desert dust
15:15–15:30	Fragkos, K.	Extraseasonal dust AOD: frequency and characteristics in the eastern Mediterranean
15:30–16:00	Marengo, F.	Closing Remarks

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