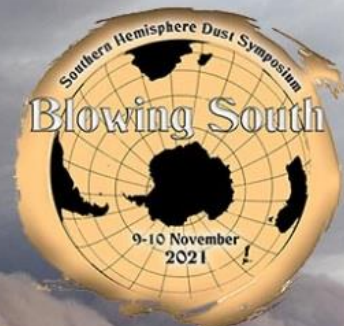


Blowing South: Southern Hemisphere Dust Symposium



November 8 - 10, 2021

FREE On-line Event

photo:PH Alexis Alaya, Estancia Chica, Metileo,
La Pampa, Argentina, December 17, 2020

programme

MONDAY, 8 NOVEMBER 2021

Time UTC+0

6.30 6.40 **Opening remarks**

Paleoclimate: Continental Proxies I

| | | KEYNOTE |
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| 6.40 | 7.10 | Examining the drivers of Australasian dust emissions: Contrasting the behaviour of the warm-arid and cold-wet Southern Hemisphere dust sources through time – Speaker: Samuel Marx |
| 7.10 | 7.25 | The age of dust—A new hydrological indicator in arid environments? – Speaker: Paul Hesse |
| 7.25 | 7.40 | Sulphur as a proxy for Southern Hemisphere westerly wind strength on sub-Antarctic Macquarie Island – Speaker: Krystyna Saunders |
| 7.40 | 7.55 | Reconstruction of atmospheric mineral dust and volcanic ash deposition in the Falkland Islands from a peat record – Speaker: Eléonore Resongles |
| 7.55 | 8.10 | Holocene dynamics of the Southern Hemisphere westerly winds: A depositional dust record from the Falkland Islands (Islas Malvinas) – Speaker: James Tamhane |
| 8.10 | 8.25 | Wind-blown dust and salt-spray concentrations reveal long-term correspondence between Southern Hemisphere Westerly wind intensity and temperature over the Southern Ocean – Speaker: Alex Whittle |
| 8.25 | 8.40 | Discussion |
| 8.40 | 9.10 | Break |

Ocean Biogeochemistry I

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| 9.10 | 9.25 | Dissolved titanium as a tracer for dust input in the Southern Hemisphere – Speaker: Peter Croot |
| 9.25 | 9.40 | Impact of desert and volcanic aerosol deposition on phytoplankton in the Southern Indian Ocean – Speaker: Carla Geisen |
| 9.40 | 9.55 | Atmospheric trace metal deposition in the oceans south of Southern Africa – Speaker: Kaukurauce Ismael Kanguuehi |
| 9.55 | 10.10 | Aeolian dust and bioactive trace metals concentrations over the Indian Ocean – Speaker: Ashwini Kumar |

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| 10.10 | 10.25 | Does the deposition of aeolian dust on the sea favor primary productivity? – Speaker: Flavio Emiliano Papparazzo |
| 10.25 | 10.40 | Influence of dust on the microbial food web in Nuevo Gulf (Patagonia, Argentina) – Speaker: Joanna Paczkowska |
| 10.40 | 10.55 | Discussion |
| 10.55 | 11.25 | Break |
| Present-day: Dynamics, Chemistry & Land Use | | |
| 11.25 | 11.40 | Dust emission from the agricultural fields in the semi-arid Free State, South Africa, and the influence of crusts and soil cover – Speaker: Heleen Vos |
| 11.40 | 11.55 | Horizontal and vertical fluxes of particulate matter during wind erosion on arable land in the province La Pampa, Argentina – Speaker: Roger Funk |
| 11.55 | 12.10 | Highlights of the study on aeolian dust emitted from agricultural soils of Argentina – Speaker: Juan Esteban Panebianco |
| 12.10 | 12.25 | PM10 emission from feedlots in soils with different texture: Cattle trampling effect – Speaker: Laura Andrea De Oro |
| 12.25 | 12.40 | Carbon enrichment in particulate matter is affected by the interaction between soil type and management – Speaker: Antonela Iturri |
| 12.40 | 12.55 | Are sodium-rich dust inputs from shrinking lakes diminishing southern South American soil fertility? – Speaker: Laura Gabriela Borda |
| 12.55 | 13.10 | Low source-inherited iron solubility of South American dust limits fertilization potential of the southern oceans – Speaker: Lucio Simonella |
| 13.10 | 13.25 | Soil and dust characterization in an Atacama desert meridional transect – Speaker: Charles González |
| 13.25 | 13.40 | Discussion |
| 13.40 | 14.25 | Break |
| Paleoclimate: Ice Cores | | |
| 14.25 | 14.40 | Dust cycle in Antarctica: insights from Holocene East Antarctic firn/ice core records and atmospheric dust measurements at Concordia Station – Speaker: Bárbara Delmonte |
| 14.40 | 14.55 | Mineral dust in the snow pits of the East Antarctic International Ice Sheet Traverse (EAIIST): preliminary results and perspectives – Speaker: Claudio Antoni |
| 14.55 | 15.10 | The role of Southern Africa in explaining the East Antarctica dust fingerprint during interglacial times – Speaker: Stefania Gili |
| 15.10 | 15.25 | REE-based reconstruction and quantification of dust flux provenances in East Antarctica over the Last Glacial-Interglacial Transition – Speaker: Nadine Mattielli |
| 15.25 | 15.40 | Giant dust in a tropical Andean glacier as a proxy of deep convection over the Altiplano – Speaker: Filipe G. L. Lindau |
| 15.40 | 15.55 | Discussion |
| 15.55 | 16.00 | Closing remarks |

TUESDAY, 9 NOVEMBER 2021

Time UTC+0

6.30 6.35 **Opening remarks**

Present-day: Chemistry & Clouds

6.35 6.50 TO BE CONFIRMED

6.50 7.05 Is it dust or not? – **Speaker: Jost Heintzenberg**

7.05 7.20 TO BE CONFIRMED

7.20 7.35 Constraining dust-driven immersion freezing in climate models using spaceborne retrievals – **Speaker: Diego Villanueva**

7.35 7.50 **Discussion**

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| 7.50 | 8.50 | Break |
| Volcanic Ash Remobilization | | |
| 8.50 | 9.05 | Aeolian remobilisation associated with the recent explosive activity of Sabancaya volcano in southern Peru – Speaker: Allan Fries |
| 9.05 | 9.20 | Aeolian remobilisation of volcanic ash: physical processes, particles and deposits in Southern volcanic terrains – Speaker: Lucía Dominguez |
| 9.20 | 9.35 | Ensemble modelling of wind-induced resuspension of volcanic ash in Patagonia – Speaker: Eliana Sabrina Vazquez |
| 9.35 | 9.50 | Impacts associated with aeolian remobilisation of volcanic ash: are they so different from those related to mineral dust? – Speaker: Pablo Forte |
| 9.50 | 10.05 | Discussion |
| 10.05 | 11.20 | Break |
| Paleoclimate: Continental Proxies II | | |
| 11.20 | 11.50 | KEYNOTE Contributions to the study of southern hemisphere Late Pleistocene climatic variability through the characterization of South American dust sources and the related sedimentary deposits – Speaker: Diego Gaiero |
| 11.50 | 12.20 | KEYNOTE Late Cenozoic record of South American loess: tectonic and paleoclimatic implications – Speaker: Marcelo Zárate |
| 12.20 | 12.35 | Composition and origin of the sand fraction of surface sediments of the Pampean region: A review and a conception – Speaker: Héctor Morrás |
| 12.35 | 12.50 | Paleoenvironmental changes in southern South American dust sources recorded by clay minerals of the Pampean loess – Speaker: Matías Romero |
| 12.50 | 13.05 | Geochemistry of aeolian sediments recorded at Pampean Loess for the last glacial-interglacial transition: implications for provenance and climate variability – Speaker: Gabriela Torre |
| 13.05 | 13.20 | Minimum LGM Dust Deposition on the South American Loess and its Possible Relationship with a Coeval Maximum in Antarctica – Speaker: Renata Coppo |
| 13.20 | 13.35 | Unraveling mineral dust sources for the Western Amazon Basin during the last 7.5 kyrs B.P. – Speaker: Juliana De Sousa Nogueira |
| 13.35 | 13.50 | Southern Hemisphere westerly wind dynamics across the Pleistocene-Holocene transition as seen from the Falkland Islands, South Atlantic – Speaker: Alistair Monteath |
| 13.50 | 14.05 | Discussion |
| 14.05 | 14.35 | Break |
| Paleoclimate: General + Modelling | | |
| 14.35 | 14.50 | Current Challenges and Recent Advances in Understanding the Paleoclimatic Dust Cycle – Speaker: Fabrice Lambert |
| 14.50 | 15.05 | ClimAG-Krigger: A new (paleo)Climatology-oriented toolbox for Anisotropic Global Kriging interpolation – Speaker: Nicolás Cosentino |
| 15.05 | 15.20 | Effect of iron from dust fluxes in the Glacial Southern Ocean – Speaker: Juan Muglia |
| 15.20 | 15.35 | Comparative view of the iron solubility impacts on ocean carbon stored during the Last Glacial Maximum and Holocene – Speaker: Natalia Opazo |
| 15.35 | 15.50 | Discussion |
| 15.50 | 15.55 | Closing remarks |

WEDNESDAY, 10 NOVEMBER 2021

Time UTC+0

6.30 6.35 **Opening remarks**

Ocean Biogeochemistry II

6.35 7.05 **KEYNOTE**

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| | | Biogeochemical impacts of dust deposition in the ocean – Speaker: Cecile Guieu |
| 7.05 | 7.20 | Simulating Size-resolved Atmospheric Dust Transport to Dronning Maud Land, Antarctica – Speaker: Kevin Henson |
| 7.20 | 7.35 | The impact of millennial scale climate change on the subantarctic Pacific during the last glacial – Speaker: Harris Anderson |
| 7.35 | 7.50 | Dust and fire, two distinct sources of essential nutrients (N, Fe) to the atmosphere? – Speaker: Morgane Perron |
| 7.50 | 8.05 | Lithogenic particle flux to the subantarctic Southern Ocean: a multi-tracer estimate using sediment trap samples – Speaker: Christopher Traill |
| 8.05 | 8.20 | Using thorium isotopes to quantify dust deposition to the Southern Ocean – Speaker: Andrea Davies |
| 8.20 | 8.35 | Phytoplankton community response to the deposition of wildfire aerosols – Speaker: Jacob Weis |
| 8.35 | 8.50 | Discussion |
| 8.50 | 9.20 | Break |
| Paleoclimate: Marine Sediment Cores | | |
| | | KEYNOTE |
| 9.20 | 9.50 | Late Quaternary paleoclimate records of southern-hemisphere drylands derived from deep-marine sediment archives – Speaker: Jen-Berend Stuut |
| 9.50 | 10.00 | Break |
| Present-day: Dynamics | | |
| | | KEYNOTE |
| 10.00 | 10.30 | Southern South America dust activity in relation to long range transport to Antarctica and the Southern Ocean – Speaker: Santiago Gassó |
| 10.30 | 10.45 | Regional and Local Mineral Dust Activity over South America – Speaker: Damián Oyarzun |
| 10.45 | 11.00 | Atmospheric deposition in the Atacama Desert: Mineral contribution and colonization of microorganisms in the hyperarid core – Speaker: Franko Arenas-Díaz |
| 11.00 | 11.15 | Dust concentration in San Jorge Gulf and adjacent shelf (Patagonia, Argentina) – Speaker: Augusto Crespi-Abril |
| 11.15 | 11.30 | Determination of provenance of aerosols by isotopic analysis and atmospheric modeling in the Atlantic and Southern Ocean – Speaker: Elaine Alves Dos Santos |
| 11.30 | 11.45 | Modern dust deposition over the South Atlantic Ocean from seafloor surface sediments – Speaker: Michelle Van Der Does |
| 11.45 | 12.00 | High latitude dust sources in Antarctica produce severe air pollution – Speaker: Pavla Dagsson-Waldhauserova |
| 12.00 | 12.15 | Discussion |
| 12.15 | 12.45 | Break |
| Paleoclimate: Marine Sediment Cores | | |
| 12.45 | 13.00 | First glance at 5 Million years of dust input to the South Pacific – Speaker: Gisela Winckler |
| 13.00 | 13.15 | Radiometric dating confirms >450,000 years of climate-lithogenic flux connection at the Eastern Weddell Gyre/ACC boundary – Speaker: Walter Geibert |
| 13.15 | 13.30 | Systematic changes in South Pacific dust provenance during the last two glacial cycles – Speaker: Torben Struve |
| 13.30 | 13.45 | Marine sedimentary insights into a uniquely Pacific early Holocene dust peak at ~10 ka – Speaker: Jennifer Middleton |
| 13.45 | 14.00 | Discussion |
| 14.00 | 14.10 | Closing remarks |