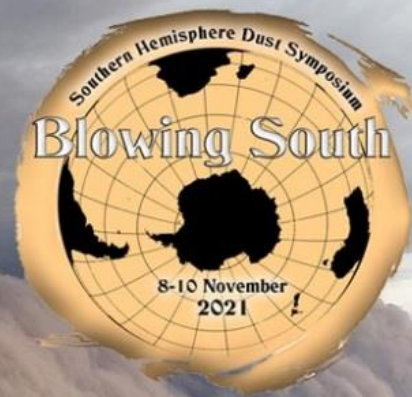


# Blowing South: Southern Hemisphere Dust Symposium



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	
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 – <b>Speaker: Samuel Marx</b>
7.10	7.25 The age of dust—A new hydrological indicator in arid environments? – <b>Speaker: Paul Hesse</b>
7.25	7.40 Sulphur as a proxy for Southern Hemisphere westerly wind strength on sub-Antarctic Macquarie Island – <b>Speaker: Krystyna Saunders</b>
7.40	7.55 Reconstruction of atmospheric mineral dust and volcanic ash deposition in the Falkland Islands from a peat record – <b>Speaker: Eléonore Resongles</b>
7.55	8.10 Holocene dynamics of the Southern Hemisphere westerly winds: A depositional dust record from the Falkland Islands (Islas Malvinas) – <b>Speaker: James Tamhane</b>
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 – <b>Speaker: Alex Whittle</b>
8.25	8.40 <b>Discussion</b>
8.40	9.10 <b>Break</b>

#### Ocean Biogeochemistry I

9.10	9.25 Dissolved titanium as a tracer for dust input in the Southern Hemisphere – <b>Speaker: Peter Croot</b>
9.25	9.40 Impact of desert and volcanic aerosol deposition on phytoplankton in the Southern Indian Ocean – <b>Speaker: Carla Geisen</b>
9.40	9.55 Atmospheric trace metal deposition in the oceans south of Southern Africa – <b>Speaker: Kaukurauce Ismael Kanguuehi</b>
9.55	10.10 Aeolian dust and bioactive trace metals concentrations over the Indian Ocean – <b>Speaker: Ashwini Kumar</b>
10.10	10.25 Does the deposition of aeolian dust on the sea favor primary productivity? – <b>Speaker: Flavio Emiliano Papparazzo</b>
10.25	10.40 Influence of dust on the microbial food web in Nuevo Gulf (Patagonia, Argentina) – <b>Speaker: Joanna Paczkowska</b>
10.40	10.55 <b>Discussion</b>
10.55	11.25 <b>Break</b>

## 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 – <b>Speaker: Heleen Vos</b>
11.40	11.55	Horizontal and vertical fluxes of particulate matter during wind erosion on arable land in the province La Pampa, Argentina – <b>Speaker: Roger Funk</b>
11.55	12.10	Highlights of the study on aeolian dust emitted from agricultural soils of Argentina – <b>Speaker: Juan Esteban Panebianco</b>
12.10	12.25	PM10 emission from feedlots in soils with different texture: Cattle trampling effect – <b>Speaker: Laura Andrea De Oro</b>
12.25	12.40	Carbon enrichment in particulate matter is affected by the interaction between soil type and management – <b>Speaker: Antonela Iturri</b>
12.40	12.55	Are sodium-rich dust inputs from shrinking lakes diminishing southern South American soil fertility? – <b>Speaker: Laura Gabriela Borda</b>
12.55	13.10	Low source-inherited iron solubility of South American dust limits fertilization potential of the southern oceans – <b>Speaker: Lucio Simonella</b>
13.10	13.25	Soil and dust characterization in an Atacama desert meridional transect – <b>Speaker: Charles González</b>
13.25	13.40	<b>Discussion</b>
13.40	14.25	<b>Break</b>

## 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 – <b>Speaker: Bárbara Delmonte</b>
14.40	14.55	Mineral dust in the snow pits of the East Antarctic International Ice Sheet Traverse (EAIIST): preliminary results and perspectives – <b>Speaker: Claudio Antoni</b>
14.55	15.10	The role of Southern Africa in explaining the East Antarctica dust fingerprint during interglacial times – <b>Speaker: Stefania Gili</b>
15.10	15.25	REE-based reconstruction and quantification of dust flux provenances in East Antarctica over the Last Glacial-Interglacial Transition – <b>Speaker: Nadine Mattielli</b>
15.25	15.40	Giant dust in a tropical Andean glacier as a proxy of deep convection over the Altiplano – <b>Speaker: Filipe G. L. Lindau</b>
15.40	15.55	<b>Discussion</b>
15.55	16.00	<b>Closing remarks</b>

# TUESDAY, 9 NOVEMBER 2021

Time UTC+0

6.30 6.35 **Opening remarks**

## Present-day: Chemistry & Clouds

6.35	6.50	Towards evaluating the impacts on Namibian mineral dust on the regional ecosystems: new data on composition and long-range transport – <b>Speaker: Paola Formenti</b>
6.50	7.05	Is it dust or not? – <b>Speaker: Jost Heintzenberg</b>
7.05	7.20	TO BE CONFIRMED
7.20	7.35	Constraining dust-driven immersion freezing in climate models using spaceborne retrievals – <b>Speaker: Diego Villanueva</b>
7.35	7.50	<b>Discussion</b>
7.50	8.50	<b>Break</b>

## Volcanic Ash Remobilization

8.50	9.05	Aeolian remobilisation associated with the recent explosive activity of Sabancaya volcano in southern Peru – <b>Speaker: Allan Fries</b>
9.05	9.20	Aeolian remobilisation of volcanic ash: physical processes, particles and deposits in Southern volcanic terrains – <b>Speaker: Lucía Dominguez</b>

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

## WEDNESDAY, 10 NOVEMBER 2021

Time UTC+0

6.30 6.35 **Opening remarks**

### Ocean Biogeochemistry II

6.35	7.05	<b>KEYNOTE</b> Biogeochemical impacts of dust deposition in the ocean – <b>Speaker: Cecile Guieu</b>
7.05	7.20	Simulating Size-resolved Atmospheric Dust Transport to Dronning Maud Land, Antarctica – <b>Speaker: Kevin Henson</b>
7.20	7.35	The impact of millennial scale climate change on the subantarctic Pacific during the last glacial – <b>Speaker: Harris Anderson</b>
7.35	7.50	Dust and fire, two distinct sources of essential nutrients (N, Fe) to the atmosphere? – <b>Speaker: Morgane Perron</b>

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