

## Climate change in the geological record

### *What the geological record tells us about our past and future climate*

#### Conference Programme

26 May 2021

Time	Speaker	Title
14:15	Mike Daly	President's address
14:20	Conveners	Welcome address
14:30	Paul Valdes	Invited: Why has climate changed in the past?
15:00	Aidan Starr	ECR Flash talk: Antarctic icebergs reorganize ocean circulation during Pleistocene glacials
15:10	Anna von der Heydt	Invited: How does the geological record inform our quantification of climate sensitivity?
15:40	Rebecca Orrison	ECR Flash talk: Mechanisms of South American Monsoon System response to external variability over the last millennium
15:50	Darrell Kaufman	Invited: Is our current warming unusual?
16:20	Break	
16:45	Bette Otto Bliesner	Invited: How can the geological record be used to evaluate climate models?
17:15	Pam Vervoort	ECR Flash Talk: Negative carbon isotope excursions: an interpretative framework
17:25	Maureen Raymo	Plenary Lecture: What the geological record tells us about our present and future climate
18:15	End	

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Time	Speaker	Title
14:15	Conveners	Welcome address
14:30	Daniela Schmidt	Invited: When Earth's temperature changed in the past, what were the impacts?
15:00	Rachel Brown	ECR Flash talk: Late Miocene CO <sub>2</sub> and climate: divorced or an old married couple?
15:10	Alan Haywood	Invited: Are there past climate analogues for the future?
15:40	Margot Cramwinckel	ECR Flash talk: Strongly reduced meridional gradients in water isotopes in the early Eocene hothouse
15:50	Jess Tierney	Invited: What does the geological record of climate change look like?
16:20	Break	
16:45	Kaustaubh Thirumalai	Invited: What does the geological record indicate about global v. regional change?
17:15	Poster talks	One minute flash talks from the poster authors
17:40	Rachael James	Invited: What is the role of geology in dealing with the climate emergency for a sustainable future?
18:10	Poster breakouts	



## Poster presentations

Presenter	Title
Brian Richard Lewis Catt	The Physics of Climate Systems - Cause, Effect and Observations
Howard Dewhirst	The contribution of fossil fuel emissions and the Pause to Global Warming
Ashley Francis	Comparison of warming onset timing and warming rates post-LIA using glacier, sea level and HadCRUT4 surface temperature observations
Thomas Gernon	Mobilization of lithospheric mantle carbon during the Palaeocene-Eocene thermal maximum
William R Gray	Poleward shift in the Southern Hemisphere westerly winds synchronous with the deglacial rise in CO <sub>2</sub>
Roger Higgs	Global warming and cooling for last 2,000 years mimic Sun's magnetic activity, not CO <sub>2</sub> : scientific literature synthesis
Gordon Inglis	Climate-biogeochemistry feedbacks during rapid warming events
Amy Jewell	Reconstructing regional North African aridity through the late Quaternary
Olaf K Lenz	Impacts of long- and short-term climate variations during the Paleogene greenhouse on a coastal wetland in Northern Germany
Valeria Luciani	Biotic impact of past warm events: effects of Early Eocene Climatic Optimum on planktic foraminifera
Alan Maria Mancini	Calcareous nannofossils and benthic foraminifers highlight the cyclical climatic and environmental changes during the Messinian: a possible analogue for the future impact on the Mediterranean ecosystem?
Christopher John Matchette-Downes	Consider the Hippopotamus, and The Eemian
Peter Francis Owen	Cycles of Climate Change
Benjamin Petrick	New multi-million year records of climate change from the shelf of Australia
Ellie Pryor	Understanding provenance changes in sediments supplying the South East African Margin
James Rae	Atmospheric CO <sub>2</sub> over the Past 66 Million Years from Marine Archives
Tammo Reichgelt	Plant proxy evidence for terra viridis australis: high rainfall and productivity in the Australian early Eocene
Marci Robinson	Paleoclimate signals in Atlantic Coastal Plain sediments
Matthew L Staitis	Investigating Deccan-induced environmental changes, prior to the K/Pg mass extinction
Douwe George van der Meer	A tectonic and glacio-eustatic sea level reconstruction for the Phanerozoic
Aja Watkins	Using Temporal Scaling to Establish Paleoclimate Analogues