

IBS Conference on Climate and Human Evolution

October 15-19, 2024

Auditorium, 2F, Mechanical Engineering Building(#303)
Pusan National University, Busan, Korea

Keynote: 30 min presentation and 10 min Q&A

Presentation: 15 min presentation 5 min Q&A

OCTOBER 15th

Time	Affiliation	Presentation type	Abstract Title
9:00-9:30	Registration		
9:30-10:00	Axel Timmermann	IBS Center for Climate Physics	Introduction
Session 1 PALEO- CLIMATE CONTEXT (Chair: Rieneke Weij)			
10:00-10:40	Hubert Vonhof	Max Planck Institute for Chemistry	Keynote Presentation Advances in quantitative climate reconstruction using speleothem records.
10:40-11:00	Daniel M. Cleary	IBS Center for Climate Physics	Presentation Mid-latitude surface temperature since the late Pleistocene through TEX86 paleothermometry
11:00-11:20	Margit H.Simon	NORCE: Norwegian Research Centre	Presentation Investigation of biomarkers from Blombos Cave, South Africa and from Rabat-Temara Caves in Morocco: Insights into Middle Stone Age sites' regional palaeoclimate
11:20-11:40	Ozan Mert Göktürk	NORCE Norwegian Research Centre AS	Presentation Nature and mechanisms of climate variability in southern Africa over the last 100,000 years inferred from regional high-resolution modelling
11:40-1:00	LUNCH		
Session 1 PALEO- CLIMATE CONTEXT (Chair: Hubert Vonhof)			
1:00-1:40	Rieneke Weij	Department of Geological Sciences, Human Evolution Research Institute, University of Cape Town	Keynote Presentation U-Th and U-Pb dating to understand Plio-Pleistocene climate variability in the Southern Hemisphere and its impact on human evolution in South Africa
1:40-2:00	Qiong Zhang	Stockholm University	Presentation Aridification and faunal adaptations to East African Miocene uplift
2:00-2:20	Deepak Kumar Chinnaswari	Technical University of Braunschweig	Presentation Climate Models as Tools for Understanding Hominin History in Northern Germany: Insights from the Last Glacial Cycle
2:20-2:40	Ayako Abe-Ouchi	University of Tokyo	Presentation Modelling abrupt climate changes during ice age cycle
2:40-3:00	COFFEE BREAK		
Session 1 PALEO- CLIMATE CONTEXT (Chair: Daniel Cleary)			
3:00-3:40	Ricarda Winkelmann	Max Planck Institute of Geoanthropology	Keynote Presentation The long-term legacy of short-term climate (in)action
3:40-4:00	Zhongshi Zhang	Department of Atmospheric Science, School of Environmental Studies, China University of Geosciences	Presentation Atmospheric and oceanic circulation altered by global mean sea-level rise
4:00-4:20	Ning Tan	Institute of Geology and Geophysics, Chinese Academy of Sciences	Presentation Closure of tropical seaways favors the climate and vegetation in tropical Africa and South America approaching their present conditions
5:30-8:00	RECEPTION in HAEUNDA 4:30 - 5:20 From PNU to Reception place transporting all together		

OCTOBER 16th

Time	Affiliation	Presentation type	Abstract Title	
Session 1 PALEO- CLIMATE CONTEXT (Chair: Margit H. Simon)				
9:30-10:10	Phil Glauberman	The Catalan Institute of Human Paleocology and Social Evolution (IPHES), Spain	Keynote Presentation	Early Human Crossroads: Late Pleistocene hominin interaction zones and current research in the Armenian Highlands
10:10-10:30	Alexander Bakhia	University of Helsinki	Presentation	Rethinking Out-of-Africa I: Ecometric Insights From Dmanisi Herbivores Challenge Prevailing Grassland Hypotheses
10:30-10:50	Calla Gould-Whaley	University of Melbourne	Presentation	Extreme southward expansion of the Australian monsoon during the Last Glacial Period: implications for human settlement of the continent
10:50-11:30	Chuan-Chou (River) Shen	Dept Geosciences, National Taiwan University	Keynote Presentation	Utilizing U-Th dating techniques for paleoclimate and anthropological studies
Session 2 MODELLING HUMANS AND OTHER MAMMALS (Chair: Thushara Venugopal)				
11:30-12:10	Pasquale Raia	University of Naples Federico II	Keynote Presentation	The phylogenetic dimension of human evolution
12:10-12:30	Dan Zhu	Peking University	Presentation	Spatiotemporal relationships between human population and climate during the last glacial period in China
12:30 -18:00 EXCURSION Bangudae (LUNCH provided) Trip bus will depart @13:30				

OCTOBER 17th

Time	Affiliation	Presentation type	Abstract Title	
Session 2 MODELLING HUMANS AND OTHER MAMMALS (Chair: Jiaoyang Ruan)				
9:30-10:10	Miikka Tallavaara	University of Helsinki	Keynote Presentation	Modelling climate-driven human population dynamics in Africa over the past 400 kilo years
10:10-10:30	Thushara Venugopal	IBS Center for Climate Physics	Presentation	A global dynamical model of terrestrial mammals
10:30-11:10	Christoph P. E. Zollikofer	Dept. of Informatics, University of Zurich, Zurich, Switzerland	Keynote Presentation	Predicting the past: potential and limitations of modeling ancient humans
11:10-11:30	Aneesh Sundaresan	IBS Center for Climate Physics	Presentation	Climate effects on human genetic diversity over Africa
11:30-12:10	Yaping Shao	Institute for Geophysics and Meteorology, University of Cologne	Keynote Presentation	Reconstruction of Middle to Upper Paleolithic Population Transition in Iberia using Our Way Model
12:10-1:30 LUNCH				

Session 3 THE TIME_EVOLVING HUMAN NICHE (Chair: Tom Higham)

1:30-2:10	Jin Cheul Kim	Korea Institute of Geoscience and Mineral Resources	Keynote Presentation	The appearance of early humans in Jeongok-ri, Korea
2:10-2:30	Elke Zeller	IBS Center for Climate Physics	Presentation	The evolving 3-dimensional landscape of human adaptation
2:30-2:50	Liping Liu	University of Helsinki	Presentation	The evolution of human niche size in East Asia over the Pleistocene
2:50-3:30	Michael Petraglia	Australian Research Center for Human Evolution	Keynote Presentation	Dispersals of Homo sapiens across Asia: Northern and Southern Routes
3:30-3:50	Ramstein Gilles	LSCE / CEA / CNRS / UVSQ	Presentation	Understanding the impact of climate and tectonic changes during the Neogene
4:50-4:10	Kim Hyun Jin	The Museum of Silhak, Gyeonggi Cultural Foundation	Presentation	modern Homo sapiens fossils in the Korean peninsula
4:10-4:30	Junyi Ge	Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences	Presentation	Repeated human occupation of the Nwya Devu Paleolithic site on the high-altitude central Tibetan Plateau during the past 45,000 years
4:30-6:00	POSTER SESSION		All Poster Presentation	
	Guohao Liang	Institute of Geophysics and Meteorology, University of Cologne, Germany, Program for HESCOR	Posters	Dispersal of Homo sapiens to East Asia
	Sarah Pederzani	Department of Geology & Geophysics, University of Utah	poster	Joint climate and fire histories from stalagmites – a Bayesian proxy system modelling approach
	Mingna Wu	China University of Geosciences	Poster	The role of sea level and seaways in modulating large-scale atmospheric circulations during the Last Glacial Period
	Christian Wirths	University of Bern	Poster	Unravelling Antarctica's contribution to Quaternary Sea Level variability
	Nitesh Sinha	IBS Center for Climate Physics	Poster	Understanding orbital-scale variations of the Eastern Asian Summer Monsoon
	Xiangyu Li	China University of Geosciences	Poster	PDO influenced interdecadal summer precipitation change over East China in mid-18th century
	Carin Andersson	NORCE Norwegian Research Centre	Poster	Seasonal scheduling of shellfish collection and paleoenvironmental reconstruction based on archaeological shells from Blombos Cave, South Africa
	Jasper A. Wassenburg	IBS Center for Climate Physics	Poster	Fluid inclusion isotopes in Moroccan speleothems: a potential tool to reconstruct droughts and provide climate context for early human occupation in northwest Africa
	Carlos Pérez-Mejías	Xi'an Jiaotong University	Poster	Reconstructing MIS3 climate during Neanderthal extinction in Iberia using speleothems from Spain
	Sayak Basu	IBS Center for Climate Physics	Poster	Leveraging the combination of observational data and climate model simulations for better understanding of speleothem $\delta^{18}O$ in the Armenian highlands
	Anupam Samanta	IBS Center for Climate Physics	Poster	Mixed calcite-aragonite speleothems from Botswana reveal past inter-annual climate fluctuations
	Jyoti Jadhav	IBS Center for Climate Physics	Poster	Elucidating the mechanisms of 400-kyr tropical hydroclimate variability during the Plio-Pleistocene
	Jie Chen	Lanzhou University	Poster	Reconciling East Asia's mid-Holocene temperature discrepancy through vegetation-climate feedback
	Taichi Sano	The Graduate School of Engineering, The University of Tokyo	Poster	Integrating Climate Variables in Population Projections for Enhanced Climate Change Risk Assessment
	Mengyu Liu	Fudan University	Poster	Abrupt Climate Changes Before and After the Founding of the Xia Dynasty-Simulations and Mechanisms
	Ellie Pryor	Cardiff University	Poster	Contextualising southern South African paleo-environments during the Middle Stone Age (100-50 ka), based on sediment provenance reconstructions
	Shuxiang Wang	Fudan University	Poster	A Simple Model Study of the Multicentennial Oscillation of AMOC
	Chuqiao Yan	Fudan University	Poster	Study of Multicentennial Variability in the Atlantic Ocean Based on a Three-Dimensional Ocean Circulation Model
	Deming Yang	American Museum of Natural History	Poster	Climate or competition? The case of third molar elongation in Plio-Pleistocene African suids
	Xiangying Zhou	Fudan University	Poster	Self-sustained Multicentennial Oscillation of the Atlantic Meridional Overturning Circulation in Two-hemisphere Box Models
	Fengli An	Fudan University	Poster	The Multi-Centennial Variability of Climate Determined the Rise and Fall of Tubo Dynasty
	Yanyan Yu	Institute of Geology and Geophysics, Chinese Academy of Sciences	Poster	Asynchronous Holocene human population changes in north and south China as related to animal resource utilization

OCTOBER 18th

Time	Affiliation	Presentation type	Abstract Title	
Session 3 THE TIME_EVOLVING HUMAN NICHE (Chair: Elke Zeller)				
9:30-10:10	Tom Higham	University of Vienna	Keynote Presentation	Improved chronometric and biomolecular approaches to understanding dispersals of early Homo sapiens across Eurasia
10:10-10:30	Tishyarakshita Nagarkar	Savitribai Phule Pune University	Presentation	Unveiling the enduring legacy and the behavioural niche: Analysing the cognitive and ritualistic facets of bow and arrow usage among the Indigenous Tribes of the Konkan Region of Maharashtra, India
10:30-10:50	Muhammad Abdul Wasay	IBS Center for Climate Physics	Presentation	Simulating the cultural evolution of ancient humans using cultural complexity metrics
10:50-11:10	Mehak Jonjua	Sharda University, Greater Noida, India	Presentation	From Paleolithic to Present: Tracing Human Migration Patterns in Jammu and Kashmir in Response to Climate Fluctuations
11:10-11:30	Hyeong Woo Lee	Jeonbuk National University, Korea	Presentation	Modern Human Studies in North Korea
11:30-12:10	Simon Armitage	Centre for Early Sapiens Behaviour (SapienCE), University of Bergen, Norway	Keynote Presentation	Assessing potential climatic drivers of human behavioural evolution on the South African coast
12:10-1:30 LUNCH				
SESSION 4 HUMAN RESPONSES TO ABRUPT CLIMATE CHANGE (Chair: Ricarda Winkelmann)				
1:30-2:10	Chronis Tzedakis	Environmental Change Research Centre, Department of Geography, University College London	Keynote Presentation	When hominins first came to Europe: colonization, depopulation and climate
2:10-2:30	Shih-Wei Fang	IBS Center for Climate Physics	Presentation	Evidence of A Climate-Driven Human Genetic Bottleneck around 900ka
2:30-2:50	Kelvin Richards	IPRC, University of Hawaii	Presentation	The response of humans to climate change: the impact of dispersal, competition and interbreeding
2:50-3:10	Lan Dai	IBS Center for Climate Physics	Presentation	Climatic and ecological responses to medium-sized asteroid collisions
3:10-3:40 COFFEE BREAK				
Session 5 GENOMICS AND ANCESTRY (Chair: Axel Timmermann)				
3:40-4:20	Chiara Barbieri	University of Cagliari	Keynote Presentation	Contrasting genetic and linguistic histories and population dynamics
4:20-4:40	Leonardo Vallini	University of Mainz	Presentation	The Persian plateau served as hub for Homo sapiens after the main out of Africa dispersal
4:40-5:00	Juhyeon Lee	Seoul National University	Presentation	Bronze and Iron Age genomes from Central Mongolia illuminate a population turnover between culturally and genetically distinct prehistoric pastoralists
5:00-5:20	Donghee Kim	School of Biological Sciences, Seoul National University	Presentation	Detecting basal aurochs-derived tracts in the genome of African taurine cattle

OCTOBER 19th

Time	Affiliation	Presentation type	Abstract Title	
Session 5 GENOMICS AND ANCESTRY (Chair: Chiara Barbieri)				
9:00-9:20	Dongju Zhang	College of Earth and Environment Sciences, Lanzhou University	Presentation	Middle and Late Pleistocene Denisovan subsistence at Baishiya Karst Cave
9:20-9:40	Jiaoyang Ruan	IBS Center for Climate Physics	Presentation	Simulating the potential scenarios of Denisovans extinction
9:40-10:00	Dongyoung Kim	Seoul National University	Presentation	Whole-genome analyses unveil a novel subspecies-level lineage of Korean troglophile harvestmen (Opiliones, Paranonychidae, Kaolinonychus coreanus)
10:00-10:20	Mijin Park	Seoul National University	Presentation	Whole genome sequencing of Greenland muskox (Ovibos moschatus) individuals using surface-deposited skeletal elements
10:20-10:50 COFFEE BREAK				
Session 6 THE ANTHROPOCENE (Chair: Shih-Wei Fang)				
10:50-11:30	Buhm Soon Park	KAIST	Keynote Presentation	Climate Change and Cultural Heritage in the Anthropocene
11:30-11:50	Qiong Zhang	Stockholm University	Presentation	Drought as a catalyst for the Classic Mayan collapse from a climate modelling perspective
12:00-1:30 LUNCH				
1:30-1:50	Tishyarakshita Nagarkar	Department of Anthropology	Presentation	Decoding Ritual Landscape, Transition and Continuity: Towards Ethnoarchaeological Study of the Palghar Region of Maharashtra With Special Reference to the Newly Discovered Geoglyphs of Saturli Village in Mokshada Block, District Palghar, Maharashtra
1:50-2:10	RAMSTEIN Gilles	Research Director at LSCE Paris-Saclay	Presentation	Vector-borne diseases in the Anthropocene
2:10-2:30	Haijun Yang	Fudan University	Presentation	Multi-centennial oscillation of the Atlantic Meridional Overturning Circulation and the evolution of human civilization
2:30-2:50	Ralf Greve	Hokkaido University, Sapporo, Japan	Presentation	Reduced mass loss from the Greenland ice sheet under stratospheric aerosol injection, and some general considerations about pros and cons of geoengineering techniques
2:50-3:10	Axel Timmermann	IBS Center for Climate Physics	CLOSING REMARKS	
3:00-6:00 COLLABORATION CAFE				