



THE WEAKENING OF THE GULF STREAM PAST, PRESENT, AND FUTURE OF EUROPE

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14 JUNE 2022 | 17:00–19:00 (CEST)

ONLINE EVENT

Moderated by
Harald Sterly



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Big Picture Panel Discussion:

The Weakening of the Gulf Stream: Past, Present, and Future of Europe

Event series of Vienna International School of Earth and Space Sciences (VISESS)

We, as a society, are facing uncertainties about the climate changes in the incoming decades. In order to address these issues, we wish to create a room for a fruitful exchange between the general public and academia. The Gulf Stream weakening is chosen as a starting point. The Gulf Stream, as part of the global ocean circulation system (AMOC, Atlantic Meridional Overturning Circulation), is a 100 km wide and 800-1200m deep ocean current. By leading warm, saline water to the North-eastern Europe (Nord Atlantic current) and western Africa (Canary current), it brings substantial warming to our latitudes. Among others, a Nature article from 2018 suggests the weakening of oceanic circulation. It is demonstrated that a by 15% weaker AMOC since the mid-20th century with 2015 was the coldest measured on the North-eastern Atlantic. The weakening of the Gulf Stream will bring major disruptions from our current living conditions, and we use it as a climatic event leading the broader societal issues that we are facing. We aim specifically to examine the societal effects of environmental change and how to deal with them from perspectives of three scientific fields including, natural science, history, and social movements.

17:00–17:05	Welcome speech
17:05–18:10	The societal effects of the weakening Gulf Stream and related environmental changes The effect of Gulf Stream changes on the climate in North West Europe <i>David Thornalley, University College London</i> The effects of previous climatic changes on humanity <i>Johannes Preiser-Kapeller, Austrian Academy of Sciences</i> The effect of climate change events on civil society - how can we exchange the roles? <i>Claire Lejeune, Sciences Po Paris</i>
18:10–18:15	Short break
18:15–18:55	Panel discussion followed by Q&A <i>Harald Sterly, University of Vienna (Moderator)</i>
18:55–19:00	Summary and concluding thoughts

David Thornalley is a professor of Ocean and Climate Science, University College London. The central focus of his research is investigating the ocean and its role in the climate system, to allow us to improve predictions of future climate change and take the necessary steps to protect our environment. His interest lies in understanding the causes, mechanisms and impacts of climate change on decadal to millennial timescales, and uses a range of sedimentary and geochemical proxies in marine sediment cores, with a particular emphasis on reconstructing changes in the circulation of the North Atlantic during the late Quaternary and Industrial-era.

Johannes Preisler-Kapeller is the leader of the research group “Byzantium & Beyond” at the Department for Byzantine Research of the Institute for Medieval Research at the Austrian Academy of Sciences and teaches Byzantine and Global History at the University of Vienna. His research focuses on global connections and comparisons between ancient and medieval societies across Afro-Eurasia, also in their reactions to environmental and climatic change. He recently published a monograph on climate, pandemics and transformations in antiquity and Middle Ages (vol. 1 “Die erste Ernte und der große Hunger”, vol. 2 “Der Lange Sommer und die Kleine Eiszeit“, 2021).

Claire Lejeune is a doctorate student at the Centre for European Studies and Comparative Politics at Sciences Po Paris. Her dissertation focuses on the notion of planning in relation to ecological and democratic issues, with a genealogical approach that will lead her to produce an environmental history of this notion. She had professional experiences in various institutions and political organisations, notably in the European Parliament where she worked on climate policies and migration issues. In addition of being an environmental activist, she’s currently running for the NUPES party (New People’s Ecologist and Social Union) in Essonne at the French legislative elections in June 2022.

Harald Sterly is a human geographer senior researcher, working at the University of Vienna in the working group Population, Environment and Development. His research focuses on the spatial and social aspects of migration, urbanization, and technological change. A specific interest lies at the nexus of translocal social formations of people, how they use information and communication technology (ICT), and how this changes their scope for agency and their vulnerability and resilience.

The **Human Dimensions of Environmental Change Committee** of the VISESS Doctoral School is composed of five PhD students part of the Department of Geography and Regional Research at the University of Vienna. They are part of the two working groups Geoecology, and Population, Environment and Development.

Christine Kroisleitner is a PhD student in physical geography, she’s part of the project “Governance options for climate smart agriculture on Austrian peatlands”.

Coline Garcia is a University Assistant (Prae Doc) in human geography. Her dissertation focuses on vulnerability of populations in the context of migration and climate change in Ethiopia and Moldova.

Lemlem Fitwi Weldemariam is a APPEAR PhD Scholar in human geography. Her project investigates the food security and migration nexus in Tigray, Ethiopia.

Mongkon Thongchaithanawut is a OeAD PhD Scholar in human geography. His research is looking at the impact of climate change in translocal networks in Vietnam and Thailand.

Reena Tadee is a OeAD PhD Scholar in human geography. She is studying the role of social media, ICT and connectedness of migrants workers in Thailand and South Korea.



THE BIG PICTURE @ VISESS



Photo: Sebastian Voltmer www.weltraum.com | Insta: [@sebastianvoltmer](https://www.instagram.com/sebastianvoltmer)

The “Big Picture” talk series is organised by VISESS, the "Vienna International School of Earth and Space Sciences", which is offering an internationally oriented training to current and future doctoral students at the Faculty of Earth Sciences, Geography and Astronomy of the University of Vienna. As humanity is facing grand challenges such as climate change or resource depletion, this new doctoral school is addressing these challenges through inter- and transdisciplinary academic research connecting the cosmos with planet Earth, its environment and the anthroposphere. With the Big Picture Talks organised by VISESS-students, the doctoral school aims to present current topics of scientific and societal interest to the interested public.