

Prof. Dr. Markus Jochum

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**The Gulfstream:
its past, future, and dynamics.**

Thursday, 16.07.2026, at 14.15
Building C6.4, Lecture Hall II (00.9)

The Atlantic Meridional Overturning Circulation (AMOC) is the zonally averaged flow in the North Atlantic. It is the sum of numerous processes, the Gulfstream being one of them, and it is responsible for the relatively mild European winters. During the ice ages it frequently collapsed, and there are some worries that it may do so again soon. However, the AMOC is not only the topic of dramatic science fiction, it is also a fascinating research topic for geophysical fluid dynamics. I will describe the observational evidence for the AMOC, the resulting simplifications to the Navier-Stokes equations, and the theoretical framework that has been developed to understand the AMOC. We will then look at the numerical climate models that are used to generate AMOC projections and discuss the potential of neural-network based emulators to address the stochastic components of climate change.



You can participate online via [MS Teams](#).

Interested people are cordially invited.

Coffee and cookies are served at 14.00 in front of the Lecture Hall