

Breaking The Wall of Climate Predictability - Reyk Börner

Reyk Börner is one of the fifteen MSCA fellows who will participate in the Falling Walls Lab competition.

Reyk is a Marie Skłodowska-Curie PhD fellow in **Applied Mathematics** at the University of Reading (UK). Originally from Germany, Reyk completed a master's in Physics at the University of Copenhagen (Denmark), where he worked on tropical air-sea interactions. Reyk is fascinated by the Earth's complexity and hopes to get a better idea of our planet's possible futures with the help of modern maths.

In his current research, as part of the Innovative Training Network "CriticalEarth", he applies the theory of dynamical systems and statistical physics to better understand **critical transitions**, or tipping points, in climate. These corresponds to abrupt changes in the state of the climate, which can have **devastating consequences**. The final objective being to imagine the climatic stability landscape of the **Atlantic Ocean circulation system** and be able to estimate the probability of these tipping events to occur.

