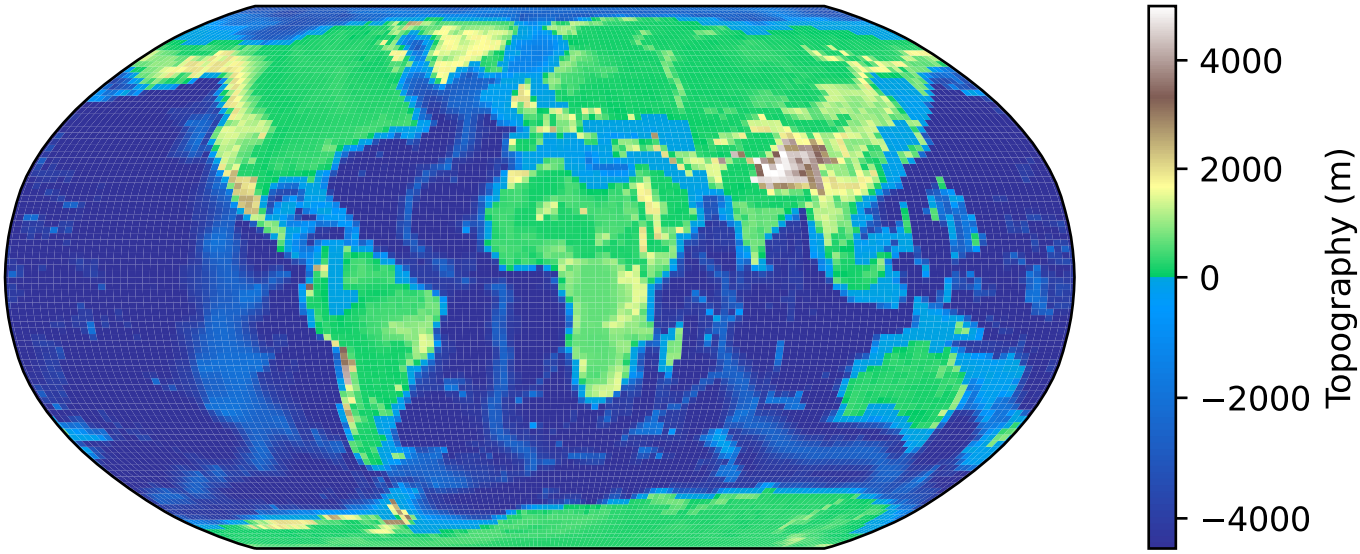

Simulating the mid-Miocene, from single cell to global paleoclimate modelling

Martin Renoult | Department of Geological Sciences, Stockhom University
January 25, 2024 at 15h00 in William-Olsson lecture hall

Climate models serve as powerful tools for predicting future climate change and assessing and mitigating its impact. Paleoclimate modelling has played a crucial role in supporting climate models since the first simulations in the 1970s by evaluating the ability of climate predictions in reproducing large-scale past climate changes, as well as testing the resilience and sensitivity of the climate system to out-of-sample forcing. Recently, there has been a growing interest for warm paleoclimates as the closest analog to future climate change, such as the Miocene, which displays particularly warm temperatures for CO2 concentrations estimated to be similar to modern levels.

In this talk, I will provide an overview of the process of setting up past climates into climate models and discuss the challenges inherent in this endeavour. I will also show the results of the first Miocene simulations I have completed using a highly complex Earth system model.

Martin Renoult is a postdoctoral researcher at IGV

25 JAN | IGV Seminar Series

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