

MSc Climate & Environmental Sciences: Graduate Seminar

Palaeoclimate

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Study Programme: MSc (Module Scientific Working II)

ECTS: 5 (2 SWS)

Participants: max. 20

Times & Location: Wednesday, 8:15-9:45 am

Pre-Meeting: 24 July 2020, 11-12 am, digital Zoom meeting (invitation required)

Topics: This seminar addresses the use of natural archives for reconstructions of past climate and environment. The discussed natural archives will include ice cores, sediments, speleothems, and organismic remains (trees, corals). We will have a closer look at methodologies commonly used to derive past climatic information. Methods to date archives and their limitations will be evaluated such as layer counting, radiometric and luminescence dating, and event stratigraphy. Physical and statistical models to extract and standardise paleoclimate data will be critically reviewed. We will deal with the climate evolution at different time scales, including the Quaternary and the Holocene, and will compare it with the Anthropocene.

Requirements and responsibilities: Attendance is mandatory - missing more than 15% of the meetings will result in a fail grade. To be punctual is obligatory. Participation in the discussions and following the rules of science ethics are prerequisites.

