



A first look at the ACER-SST dataset: Mapping the spatio-temporal variability of sea-surface temperatures in the last Glacial and the Holocene

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Climate in the last Glacial was characterized by abrupt and large-scale changes around cold Heinrich-Events and warm Dansgaard-Oeschger excursions in the Northern high latitudes. The global repercussions of these periods of rapid dynamics are, to date, unconstrained.

Here, we present a first statistical analysis of the global multi-proxy ACER (Abrupt Climate Changes and Environmental Responses) sea surface temperature dataset, spanning the last 80 thousand years, to investigate the spatial footprints of glacial climate dynamics. In a first step we evaluate the spatial and temporal variability throughout the Glacial period, and contrast them with that during the Holocene. In a second step we investigate to which extent a temporal synchronicity of extreme events during the Glacial is detectable in the proxy records, and analyze the reversibility of Glacial dynamics.