

## Global reorganization of past climates and the role of ocean-atmosphere interactions

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Paleoclimate proxies recording past climate changes provide examples of co-ordinated changes to Earth's climate, suggesting a global-scale reorganization of the large-scale atmospheric and ocean circulation. Our understanding of what exactly causes these changes, and how the reorganized climate and circulations look like, are still in the beginning stages. Past studies have focused on two major sources of change: the Atlantic Meridional Overturning circulation, and the tropical Pacific climate system in particular changes to the El Niño-Southern Oscillation. I will discuss past work and recent advances that have contributed to our understanding of the paleoclimate problem, as well as what we learn of the modern-day climate dynamics. I will end by discussing ways that modeling isotopes can contribute to the endeavor.