

Department Climate Dynamics

We aim to advance our fundamental understanding of global climate dynamics by employing a unique research strategy that involves systematically combining a hierarchy of models with principle-based theories. Our focus centers on exploring the mechanisms that govern large-scale climate change patterns across various regions, from the tropical Pacific to the polar areas, and understanding the interconnections of these regions. A key aspect of our research involves investigating tightly coupled multi-scale processes – cloud radiation, atmospheric circulation, and ocean dynamics.