

WCRP CLIVAR Climate Dynamics Panel Workshop 2022  
Abstract submission

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Title: Implications of historical radiative forcing and its uncertainties for understanding observed climate variability and change

This talk will give an overview of the current understanding of historical radiative forcing and its uncertainties, focusing on the recent findings of the IPCC Working Group I Sixth Assessment Report. The implications of historical radiative forcing uncertainty and structural model differences for attributing climate variability and change at regional scales on decadal to multi-decadal timescales will be discussed. Large initial condition ensembles will be applied to pertinent examples, including the role of aerosol forcing in 20<sup>th</sup> century climate variability and trends and the impact of the Antarctic ozone hole on Southern hemisphere climate.