

An Overview of Atmospheric Chemistry and Air Quality Modeling

This presentation will include my personal research experience and an overview of atmospheric chemistry and air quality modeling to the participants of the NASA Student Airborne Research Program (SARP 2017). The presentation will also provide examples on ways to apply airborne observations for chemical transport (CTM) and air quality (AQ) model evaluation. CTM and AQ models are important tools in understanding tropospheric/stratospheric composition, atmospheric chemistry processes, meteorology, and air quality. This presentation will focus on how NASA scientist currently apply CTM and AQ models to better understand these topics. Finally, the importance of airborne observation in evaluating these topics and how in situ and remote sensing observations can be used to evaluate and improve CTM and AQ model predictions will be highlighted.