



ATOC COLLOQUIUM

Welcome!

Please join us for the next ATOC Colloquium on **Friday, April 2nd**, from **11:00 AM–12:00 PM**. This week's colloquium features **Dr. Nicole Schlegel (NASA JPL)**. A link to join the colloquium via Zoom is provided beneath the abstract below.

Models and data: a critical relationship for constraining uncertainty in ice-sheet model projections

The satellite era has brought a wealth of knowledge and complexity to the field of ice-sheet modeling. Yet, these data have also brought acceptance of looming uncertainties in model-based projections of future sea-level change. In order to improve such projections, it is crucial to take advantage of the symbiotic relationship between data and models. The Ice-sheet and Sea-level System Model (ISSM) is a thermo-mechanical 2D/3D parallelized finite element software used to physically model the continental-scale flow of ice. Here, we discuss the roles that satellite data play in informing ice-sheet models and describe the uncertainty quantification methods available through ISSM for the investigation of how errors in model input impact uncertainty in simulation results. We also describe how these types of experiments allow us to prioritize the key datasets, measurements, and target regions in Antarctica that are critical for the minimization of ice-sheet model uncertainty.



Zoom link:

<https://cuboulder.zoom.us/j/91586628358>

Password: ATOC

About the ATOC Colloquium

The Department of Atmospheric and Oceanic Sciences (ATOC) Colloquium is typically held **every other Friday** from **11:00 AM–Noon**. Colloquia alternate between the following formats: (A) Full-length talk by a faculty member or invited speaker, (B) Three conference-length talks by graduate students. If you would like to nominate a speaker (including self), please email the ATOC Colloquium Committee Chair, Prof. Andrew Winters (andrew.c.winters@colorado.edu). Please visit www.colorado.edu/atoc/colloquium for further details.