



# ATOC COLLOQUIUM

## Welcome!

Please join us for the next ATOC Colloquium on **Friday, March 5**, from **11:00 AM–12:00 PM**. This week's colloquium features **Dr. Jerry Meehl (NCAR)**. A link to join the colloquium via Zoom is provided beneath the abstract below.

## Initialized Earth system prediction from subseasonal to decadal timescales

Initialized Earth system predictions are made by starting a numerical prediction model in a state as consistent as possible to observations, and running it forward in time for up to ten years. Weather predictions for the next few days were the first initialized predictions, but predictions are now being explored at climate time scales from subseasonal to seasonal (30 to 90 days ahead), seasonal to interannual (3 months to a year) and seasonal to decadal (3 months to ten years). Such climate predictions offer information that is potentially useful for various stakeholders, from agriculture to water resource management to human and infrastructure safety. Future work must prioritize reducing model error, more effectively communicating forecasts to users, and increasing process and mechanistic understanding that could increase predictive skill and, in turn, confidence. Initialized predictions with Earth system models are expanding usefully predicted quantities from surface temperature and precipitation to include sea-ice, air pollution, and terrestrial and ocean biochemistry. If these quantities can be predicted reliably, they have the potential to present a clear benefit to society and various stakeholders.



**Zoom link:**

<https://cuboulder.zoom.us/j/99937026492>

**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](mailto:andrew.c.winters@colorado.edu)). Please visit [www.colorado.edu/atoc/colloquium](http://www.colorado.edu/atoc/colloquium) for further details.