



# ATOC COLLOQUIUM

## Welcome!

Please join us for the next ATOC Colloquium on **Friday, March 3** from **11:00 AM–12:00 PM**, which will be held in **SEEC S228 and simulcast over Zoom**. This week's colloquium features **Dr. Matthew Shupe (CIRES/NOAA PSL)**. Please join us for coffee beginning at 10:45 AM and stay for lunch catered by Illegal Pete's afterwards.

## The MOSAiC Expedition for Understanding the Processes of Arctic Change

Arctic sea ice is declining rapidly as a result of amplified change in the Arctic relative to the rest of the earth. Many coupled processes, spanning across the atmosphere-ice-ocean system, are either driving or responding to these changes. The Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSAiC, 2019-2020) was a year-long, international, scientific expedition onboard the research icebreaker Polarstern as it drifted with this changing sea ice across the central Arctic. MOSAiC was designed to build our understanding of the causes and consequences of the changing sea ice through a comprehensive, interdisciplinary set of observations that are the foundation for advancing knowledge and improving multi-scale models. In this presentation we will follow the journey of Polarstern across the Arctic on this historic expedition. Along the way we will take a closer look at some of the key scientific analyses and activities that are bringing new insight into the coupled Arctic system. Among others, these will include a focus on clouds and their impacts on energy transfer to the surface; internal sea ice processes that affect ice growth; deformation of the sea-ice on multiple scales; and a unique process-based assessment of operational models.



**Location:** SEEC S228 & Zoom

**Zoom:**

<https://cuboulder.zoom.us/j/97845417945>

**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.