

## Welcome!

Please join us for the next ATOC Colloquium of the fall semester on Friday, September 30 from 11:00 AM–12:00 PM, which will be held in SEEC S228 and simulcast over Zoom. This week's colloquium features Dr. Hansi Singh (Univ. of Victoria). Please join us for coffee beginning at 10:45 AM and stay for lunch catered by Illegal Pete's afterwards.

## Modeling Hierarchies and Data-Driven Methods in Coupled Climate Dynamics: Understanding Regional Sensitivity, Global Teleconnections, and their Interplay

Changes in large-scale dynamics impacts regional-scale projections, while forcings at the regional scale can impact large-scale dynamics. I will describe some of my group's current work showing how modelling hierarchies can be used to attribute the significant impacts of large-scale ocean dynamics changes on both climate and precipitation sensitivity to warming. I will also demonstrate how data-driven methods, particularly AI and machine learning, can be used to model both local impacts and large-scale teleconnections associated with regional forcing perturbations, a framework that may be useful for climate intervention studies.



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). Please visit www.colorado.edu/atoc/colloquium for further details.