ATOC COLLOQUIUM

Welcome!

Please join us for the first ATOC Colloquium of the fall semester on **Friday, September 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. Maria Molina** from the **National Center for Atmospheric Research** and is offered as the first installment of the **"Joint Earth Seminar Series"** during the Fall 2021 semester. Please join us for conversation beginning at 10:45 AM and stay for lunch from Illegal Pete's afterwards. **In CU buildings, please wear a mask if not actively eating/drinking.**

Robustness of Deep Learning in a Changing Climate

Recent computational advances have enabled substantial progress in large-data analysis and deep learning. These tools can be leveraged to discover patterns within the Earth climate system and to create more skillful predictions for societal benefit. However, as the climate continues to change, deep learning models may not perform with skill when faced with events that lie outside of the base climate state they were trained on. This seminar will highlight a recently published benchmark study that tested the ability of a convolutional neural network to skillfully classify severe convective storms of a future climate. Explainable Artificial Intelligence techniques were also applied to the trained model, which revealed that the convolutional neural network learned weather information that was not prescribed during the training process.

Location: SEEC S228 and Zoom

Zoom:
https://cuboulder.zoom.us/j/92831555608

Password: ATOC

About the ATOC Colloquium and the Joint Earth Seminar Series

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. The **Joint Earth Seminar Series** is co-hosted monthly by ATOC, INSTAAR, Geology, and Geography. If you would like to nominate a speaker (including self), please email the ATOC Colloquium Committee Chair, Prof. Jan Lenaerts (jan.lenaerts@colorado.edu). Please visit www.colorado.edu/atoc/colloquium for further details.