



NCAR ADVANCED STUDY PROGRAM 2023 SUMMER COLLOQUIUM

The Atmospheric Boundary Layer: Integrating Complexity Across Disciplines

In its lowest 1-2 km the atmosphere responds directly to the Earth's surface and is the primary region where humans live and interact. A fundamental understanding of the non-linear processes determining the ABL's coupling between the overlying free troposphere and the systems at its lower boundary (e.g., biosphere, hydrosphere, pedosphere, etc.) is critical for informing societal needs that involve water, agriculture, transportation systems, air quality and energy sources.

This two-week colloquium will be held at the National Center for Atmospheric Research in Boulder, CO, USA

ASP will fund travel and living expenses for approx. 25 participants during the colloquium.

For more information about the Advanced Study Program and their Summer Colloquia visit asp.ucar.edu

Overview

The focus of this year's colloquium will be on the integrator nature of the ABL. An integrator of processes that determine momentum, heat, moisture, and trace gases, but also as an integrator of scientific disciplines. Through a series of lectures, practicals and hands on instrumentation activities we aim to bring together theory, process-scale modeling, large-scale modeling and observation in order to form a more complete understanding of the ABL.

Expected Outcomes

University community researchers will gain an in-depth understanding of the importance of the ABL through an interdisciplinary approach to learning. The hope is that students will be encouraged to take on ABL-related science problems and apply an integrated philosophy of learning to their own research.

