

**2019 National Center for Atmospheric Research (NCAR) Advanced Study Program (ASP) Colloquium - Quantifying and communicating uncertainty in high-impact weather prediction**

Every summer, NCAR sponsors a 10-day colloquium for graduate students. This year we are convening an interdisciplinary colloquium on "Quantifying and communicating uncertainty in high-impact weather prediction". We are looking for bright, enthusiastic graduate students from different social science disciplines who are studying risk and uncertainty -- including but not limited to risk perception, risk communication, judgment and decision making, vulnerabilities, etc. -- and who are either already working on or are interested in the context of hazardous weather events. These students will come together for 10+ days with students from meteorology to learn about and contribute to scholarship about hazardous weather predictability, weather forecasts and associated uncertainty, assessments and uses of forecast risk information, and so forth.

All participants who are selected to participate in the colloquium will have their travel and lodging costs fully covered; this includes international students. Selected participants must pay a flat \$100 fee for workshop refreshments (because we are not allowed to cover those costs with NSF money), but that will be their only out-of-pocket cost to attend the colloquium. A fuller description of the colloquium and a link to apply is below.

**In 2019, the Advanced Study Program is hosting "Quantifying and communicating uncertainty in high-impact weather prediction."**

This colloquium will be held at the National Center for Atmospheric Research (NCAR) in Boulder, CO, USA. July 15-26 2019

Severe convective weather events produce life and property losses that could be mitigated by improved hazard predictions. Yet, forecasts are constrained by atmospheric predictability and our ability to accurately simulate the true atmosphere. Further, to fully utilize our current prediction capability we must address rapidly growing data volume issues and current deficiencies in our ability to effectively communicate threat information. Moreover, interdisciplinary approaches crossing atmospheric, data, and risk analysis and communication sciences are necessary to advance our high-impact hazard prediction capabilities. Toward this goal, this colloquium will assemble students into interdisciplinary teams to create comprehensive uncertainty assessments that evolve in space and time as an event horizon for high-impact weather events is approached. These assessments will examine atmospheric predictability leveraging state-of-the-art forecast tools and methods in combination with

factors that influence risk assessment and decision-making across a spectrum of different decision-makers. Each team will be guided by experts in weather prediction, data science, and risk communication to develop their assessments, will present their results at the conclusion of the colloquium, and will aid the workshop organizers in defining a roadmap for the future scientific workforce needs to improve future hazard prediction.

Approximately 25 students will be selected to participate in the colloquium. Travel costs (air fare, lodging, ground transportation, etc.) will be covered for all selected participants. However, selected participants must pay a flat \$100 fee to cover workshop refreshments.

**Organizers:**

NCAR organizers: Glen Romine, Rebecca Morss, Julie Demuth & Chris Snyder  
University organizers: Lance Bosart (SUNY Albany) and Russ Schumacher (Colorado State University)

**How to apply:**

Applicants need to provide some basic contact information and the following:

- CV
- unofficial transcripts
- letter of support from an advisor or close mentor
- statement of interest (maximum of 2 pages) please address the following:
  - research you have done to date
  - research you aspire to do in the near future and how this colloquium could benefit your progress
  - why this inter-disciplinary colloquium is of particular interest
  - your experience with data analysis

**Deadline** for applications is **April 1, 2019**

Please note: There is a \$100 registration fee to **attend** this colloquium. There is no fee to apply.

Link to apply for this colloquium, <https://www.regonline.com/registration/Checkin.aspx?EventId=2555815>