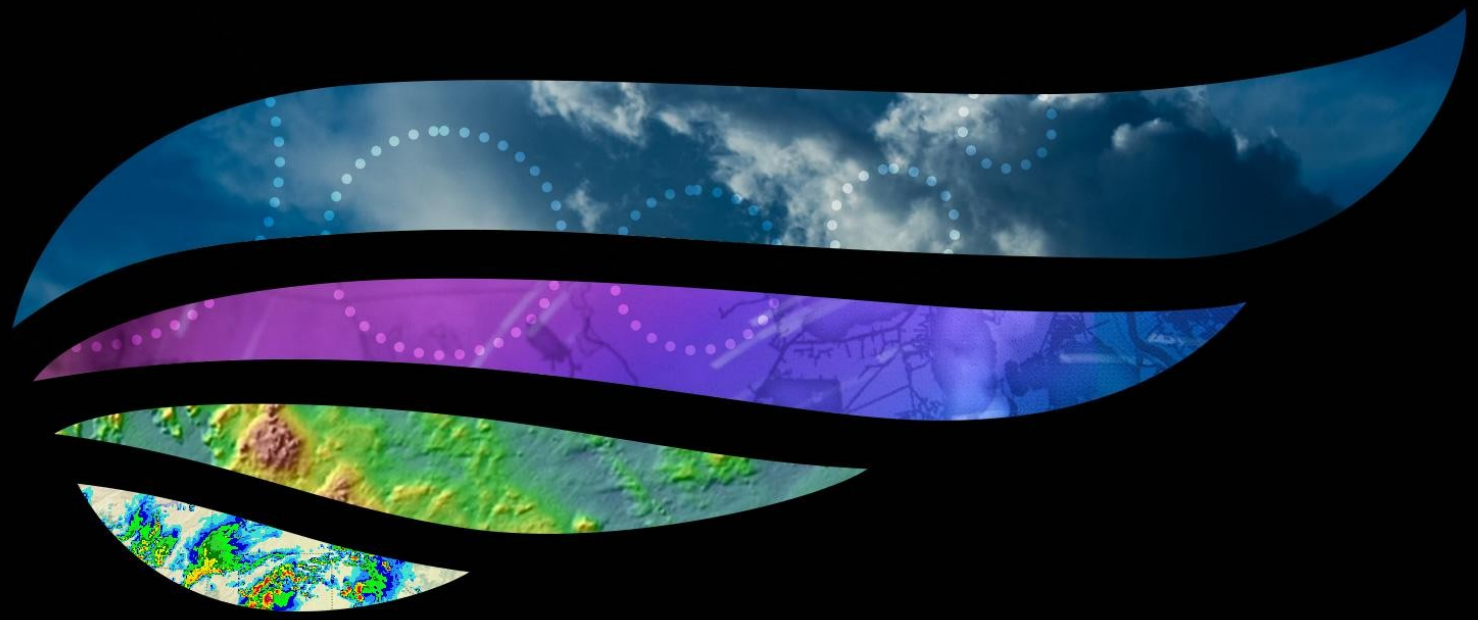


WEATHER PROGRAM OFFICE'S
INNOVATION FOR NEXT GENERATION SCIENTISTS
FELLOWSHIP

W.I.N.G.S.

NOAA Ph.D. Dissertation Program

UCAR COMMUNITY PROGRAMS

CPAESS
Cooperative Programs for the Advancement of Earth System Science

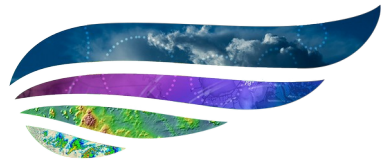
NOAA – UCAR Partnership

UCAR COMMUNITY PROGRAMS | CPAESS Cooperative Programs for the Advancement of Earth System Science

NOAA WEATHER PROGRAM OFFICE

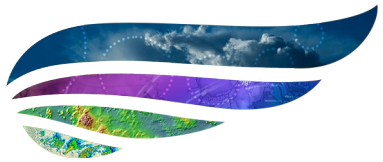
Mentors

- Cindy Bruyère
- Hanne Mauriello
- Kate Rodd
- Julie Cross
- Dawn Mullally
- Whitney Robinson
- Leah Dubots
- Maoyi Huang
- Dorothy Koch
- John Ten Hoeve
- Krishna Kumar
- Jennifer Vogt
- Tamara Battle
- Jose-Henrique Alves
- Cristiana Stan, George Mason University
- Daryl Kleist, NOAA
- Barry Baker, NOAA
- Mike Barlage, NOAA



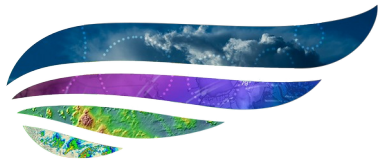
NOAA – UCAR Partnership

- WINGS will enable Fellows to gain insights and real-world experience in their field of study
- Support the Fellows' integration into the workforce, and offer a unique opportunity to contribute to forecast model development
- This inaugural award year's focus is on NOAA's Earth Prediction Innovation Center (EPIC) Program – specifically around community research and modeling system advances and improvements in the Unified Forecast System (UFS)
- Focus topics this year included:
  - Data Assimilation
  - Atmospheric Physics
  - Systems Architecture (coupling, workflow, continuous integration and development)
  - Machine Learning/Artificial Intelligence
  - Software Engineering to advance numerical weather prediction



The Fellow Experience

- This Fellowship is designed for Ph.D. candidates who have completed their required coursework and are in the beginning stages of writing a dissertation
- Fellows will continue to work with their academic advisor
- An additional mentor is recommended by WPO and CPAESS
- The Fellowship is a two-year appointment allowing the Fellows to complete their Ph.D.



Further Information

CINDY BRUYÈRE

Deputy Director of UCAR SPS & CPAESS

bruyerec@ucar.edu - cpaess.ucar.edu

KATE RODD

CPAESS Program Coordinator

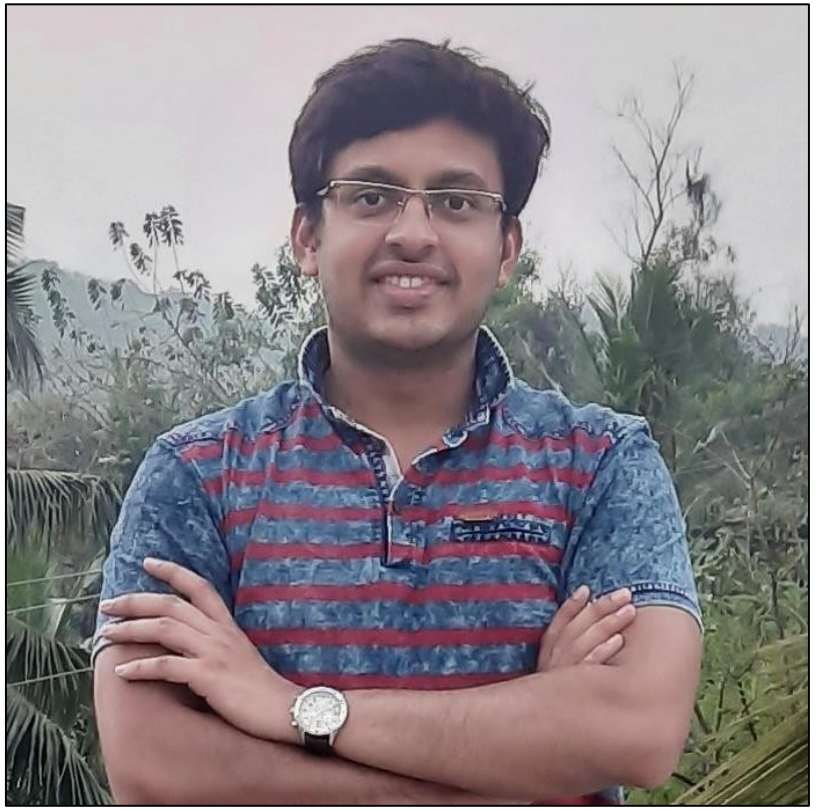
krodd@ucar.edu - cpaess.ucar.edu

This Year's Fellows: Emily Faber

- Impacts of Surface Winds on Dust Emissions: Comparison of Measurements and Models to Improve Model Parameterization and Further Understanding of Sub-Grid Processes
- University of Maryland Baltimore County (UMBC)
- Advisor: Dr. Adriana Rocha-Lima

This Year's Fellows: Shreyas Dhavale

- The Origin and Evolution of the Monsoon Onset Vortex and its Sub-Seasonal Impacts: Integrating Theory and Predictability Studies using the UFS
- North Carolina State University
- Advisor: Dr. Anantha Aiyyer



This Year’s Fellows: Joseph Knisely

- Exploring New Satellite Bias Correction Methodologies for Numerical Weather Prediction within Theoretical and Operational Frameworks
- University of Maryland's Department of Atmospheric and Oceanic Science (AOSC)
- Advisor: Dr. Jon Poterjoy