

**(A) HBCU-RISE EWC Center**  
(Extreme Weather Research Center)

PIs: Lin, Mekonnen, Zhang, Kaplan  
(ERAU)

**Funding:** NSF, ~ 1 M for 3 yrs starting 4/15/21; 4 PhD/MS & 4 BS supported  
**Focus on** orographic and Climate impacts on extreme weather formation and enhancement, such as tropical cyclones, wildfires, storm surge, etc.

**(B) Wildfire Dynamics & Modeling**

PIs: Lin, Liu (NCAT); Kaplan, James  
(ERAU)

**Funding:** NSF, \$498,373 (6/1/19-5/31/23)

**No. students:** 2 graduate students

**Focus:** Mesoscale environments conducive to wildfire formation & severe downslope wind dynamics by conducting large-scale mesoscale, small-scale, and large-eddy simulations.

**(C) Tropical Cyclone Dynamics & Modeling**

PIs: Lin, Karim (NCAT), SH Chen (UCD)  
**Collaborators:** Bell (CSU), Yang (NTU)

**Funding:** NSF, supporting 1 graduate student to participate in the **2022 PRECIP field experiment in Taiwan.**

**Future direction:** Plan to submit a proposal to NSF to support the orographic-TC rain dynamic after a successful PRECIP field experiment in 2022.

**(D) GeoPath:** PIs: Zhang, Bililign, Lin, Mekonnen (Click [here for details](#))

**(E) CROCUS:**

PIs: Lin, Zhang, Kaplan

**Focus:** Numerical simulation of urban heat island

**Funding:** DOE, \$1 M for 5 years (NCAT part)

**Collaborators:** Argon National Lab, U. Chicago, UIUC, NW U., etc.

**(F) Other Research**

Orographic effects on MJOs (Lin, Riley, Agyakwah)