

Research at the MesoLab (*MesoLab*) Yuh-Lang Lin, Physics, AST

(A) Wildfire Dynamics

PI/Co-PIs: (NCAT) YL Lin, L Liu,
(ERAU) ML Kaplan, D. Ivanova
Funding: NSF, \$498,373 for 3yrs starting
6/1/19)

No. Students: 4 (with leveraging funds
Future direction: Expand the scope into
economic impacts along with a USFS
exploratory project (PI: Schimmel),
in addition to science.

(B) Tropical Cyclone Dynamics

PI/Co-PIs: (NCAT) YL Lin, (UCD) SH Chen
(CSU) M Bell, (NTU) Yang, & other
PRECIP team members

Funding: NSF, \$6,500 (seed fund)
No. Students: 2 (to participate in the
PRECIP field experiment in Taiwan)
Future direction: The PI & Dr. Chen at UCD
plan to submit a proposal to NSF for
supporting scientific research.

(C) NSF HBCU-RISE Center (Extreme Weather Center)

PI/Co-PIs: (NCAT) YL Lin, A. Mekonnen,
J. Zhang, (ERAU) M. L. Kaplan
Funding: NSF, 3 yrs starting 4/15/21

No. Students: 4 PhD/MS, 4 BS
Future direction: 1. Orographic impacts on
tropical cyclones, 2. Orographic influence
on wildfires, and 3. Climate and
orographic effects on TCs and wildfires.

(D) Other Research

- (i) GeoPaths (PI: S Bililign, Co-PI: Lin,
Zhang, Mekonnen, Jha) – See Bililign's
1-pager.
- (ii) Orographic effects on an Madden Julian
Oscillation
PI: YL Lin, Funding: A PhD student
supported by Title III Fellowship
- (iii) Aviation Turbulence
PI: YL Lin, Funding: UCAR
(ended in 2018), 3 students involved.