

### Atmospheric System Research - List of Awards

Funding Opportunity Number: DE-FOA-0002198

Title	PI	Institution	Location
Characterization of carbonaceous aerosols during TRACER-CAT	Cappa, Christopher	Regents of the University of California Davis	Davis, CA
Establishing robust correction schemes for improved and reliable ARM-AOS aerosol optical data products	Chakrabarty, Rajan	Washington University	St. Louis, MO
Constraining microphysical processes of warm rain formation using advanced spectral separations, an ensemble retrieval framework and machine learning techniques	Chiu, Christine	Colorado State University	Fort Collins, CO
Measurements of TRACER pre-convective conditions and mesoscale circulations using small unmanned aircraft systems (sUAS)	de Boer, Gijs	The Regents of the University of Colorado, University of Colorado	Boulder, CO
Understanding the natural sources of aerosols and their impacts on cloud formation and climate across hemispheres	DeMott, Paul	Colorado State University	Fort Collins, CO
Advancing the Understanding of Cloud Microphysical Processes and Aerosol Indirect Effects in High-Latitude Mixed-Phase Clouds by Linking ARM Measurements with Climate Model Simulations	Diao, Minghui	San Jose State University Research Foundation	San Jose, CA
Evaluating Biases in Aerosol-Cloud Interaction Metrics using ARM Data and Models	Feingold, Graham	NOAA/OAR	Boulder, CO
Numerical Simulations of Cold Air Outbreaks Using a Multi-Scale Modeling Framework	Geerts, Bart	University of Wyoming	Laramie, WY
Characterizing the Small-Scale Dynamical, Ice Microphysical, and Residual Aerosol Properties of Mid-Latitude Cold Clouds: A Pilot Study	Harrington, Jerry	The Pennsylvania State University	University Park, PA
Coastal Urban Boundary-layer Interactions with Convection (CUBIC)	Klein, Petra	Board of Regents of the University of Oklahoma	Norman, OK
Application of aerosol-ice nucleating particle closure to establish the leading parameters governing ice crystal number concentration under commonly observed mixed-phase cloud conditions	Knopf, Daniel	Research Foundation for the State University of New York, RFSUNY - Stony Brook University	Stony Brook, NY
Aerosol Effects upon Convective Cold Pools: Establishing General Trends	Lasher-Trapp, Sonia	Board of Trustees of the University of Illinois	Champaign, IL
LAACI – Light Absorbing Aerosol-Cloud Interactions Experiment	Mazzoleni, Claudio	Michigan Technological University	Houghton, MI
Using MARCUS, MICRE, and COMBLE data to improve understanding and modeling of cloud, aerosol, and boundary layer processes at high-latitudes	McFarquhar, Gregory	Board of Regents of the University of Oklahoma	Norman, OK
Synoptic and Mesoscale Modulation of Dynamic and Thermodynamic Impacts on Central Arctic Sea Ice During MOSAIC	Persson, Ola	The Regents of the University of Colorado, University of Colorado	Boulder, CO
Size-resolved Eddy-Covariance Particle Flux Measurement during the TRACER Campaign	Petters, Markus	North Carolina State University	Raleigh, NC
Targeted Mobile Measurements to Isolate the Impacts of Aerosols and Meteorology on Deep Convection	Rapp, Anita	Texas A&M University	College Station, TX
Baselining the Indirect Effect by Improving Quantification of Sea Spray and Marine Sources at Ascension Island	Russell, Lynn	The Regents of the University of California-SIO	La Jolla, CA
TRACER-MAP: Mapping Aerosol Processes across Houston during convective cell events	Sheesley, Rebecca	Baylor University	Waco, TX
Cloud-atmosphere impacts on the central Arctic surface energy budget	Shupe, Matthew	The Regents of the University of Colorado University of Colorado	Boulder, CO
Early Stages in the Lifecycle of Polar liquid-bearing Clouds	Silber, Israel	The Pennsylvania State University	University Park, PA
Ultrafine aerosol particle formation and impacts in Houston during TRACER	Smith, James	Regents of the University of California Irvine	Irvine, CA
Classification of Cloud Particle Imagery and Thermodynamics (COCPIT): A New Databasing Tool for the Characterization of Cloud Particle Images Captured During DOE Field Campaigns	Sulia, Kara	Research Foundation for the State University of New York, RFSUNY - University at Albany	Albany, NY
A combined experimental and hierarchical modeling approach for quantifying the impact of clouds on biogenic organic aerosol	Thornton, Joel	University of Washington	Seattle, WA
Examining the Impacts of Microphysical-Dynamical Feedbacks on Convective Clouds in Different Aerosol Environments Using Enhanced Observational and Modeling Strategies	van den Heever, Susan	Colorado State University	Fort Collins, CO
Polarimetric radar & lightning analysis and high resolution simulations to support TRACER science goals	Van Lier-Walqui, Marcus	The Trustees of Columbia University in the City of New York	New York, NY
Aerosol hygroscopic growth, mixing state, and cloud condensation nuclei activity during Tracking Aerosol Convection Interactions Experiment (TRACER)	Wang, Jian	Washington University	Saint Louis, MO
Understanding the Vertical Transport and Removal of Aerosols during Deep Convective Events	Wang, Yang	The Curators of the University of Missouri (Rolla) (Mo. Univ of Sci and Tech)	Rolla, MO
Advanced Precipitation and Boundary Layer Data Products Derived from ARM Radar Wind Profilers	Williams, Christopher	The Regents of the University of Colorado, University of Colorado	Boulder, CO
Investigating the role of dynamical processes in driving aerosol-cloud interactions in boundary layers over ocean and land	Wood, Robert	University of Washington	Seattle, WA
Synthesis of aerosol-cloud interactions over the southeast Atlantic throughout the seasonal cycle	Zuidema, Paquita	University of Miami (School of Marine and Atmospheric Science)	Key Biscayne, FL