

# Aerosol Particles Demystified

Armin Sorooshian is studying how aerosol particles affect everything from climate change to naval operations.

Armin Sorooshian, an assistant professor in the department of chemical and environmental engineering, and the atmospheric sciences department, researches the effects of aerosol particles on climate change, public health, and renewable energy applications.

In particular, he is studying the interactions between aerosols, clouds, and precipitation. He uses various methods for this research, including laboratory experiments, ground and airborne field measurements, modeling and remote sensing observations. Sorooshian's recent work has explored the effects of ocean ecology on maritime clouds and has shown which regions of the planet may be most susceptible to suppression of rainfall as a result of aerosol pollution.

"These aerosols, which influence critical environmental parameters such as visibility, remain poorly understood owing to their complex nature, measurement limitations and the difficulty in untangling aerosol effects from meteorology," Sorooshian said.

Sorooshian is one of only 17 scientists chosen nationally by the Office of Naval Research to receive a Young Investigators Program grant. He is using the grant to design and build instrumentation to measure interactions between atmospheric water and aerosols.



**Assistant Professor  
Armin Sorooshian**