

## **422nd Brookhaven Lecture, 2/21** **Yangang Liu Talks About Aerosols, Clouds, Climate**

What might happen in the air when a rain-laden cloud passes over a factory chimney pouring out black smoke? Do tiny particles from burning of fossil fuel somehow alter the climate by playing tricks on clouds high above?

As scientists who study aerosols, clouds, and precipitation know, particles in the atmosphere interact with one another and affect the Earth's climate through a myriad of complex processes. These processes act over a wide range of scales — from the sub-micrometer to the global scale of over 10,000 kilometers.

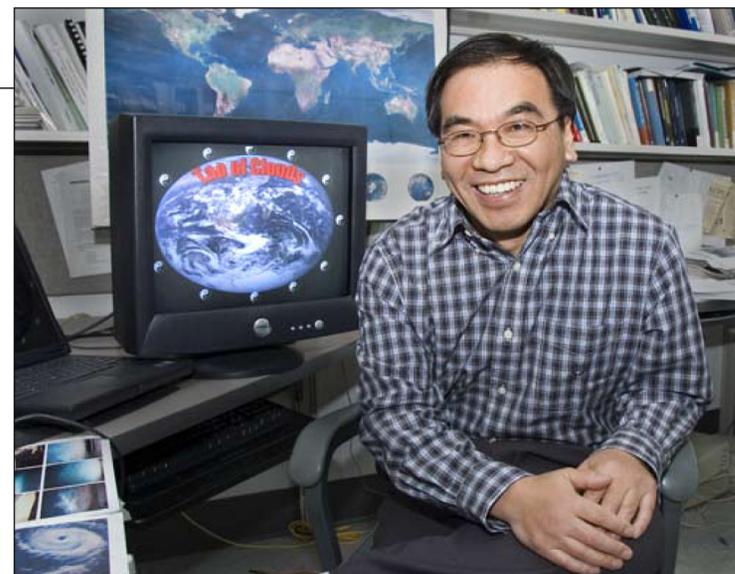
To learn more about these phenomena, join Atmospheric Scientist Yangang Liu, Environmental Sciences Department

(ES), when he gives the 422nd Brookhaven Lecture, titled "Aerosols, Clouds, and Climate — From Micro to Macro," at 4 p.m. on Wednesday, February 21. The lecture will be held in Berkner Hall, and Liu will be introduced by Peter Daum, ES's Atmospheric Sciences Division Head. All are welcome to attend Brookhaven Lectures, which are free and open to the public. Visitors to the Lab or 16 and over must carry a photo ID.

In his talk, Liu will discuss his and colleagues' studies of aerosols-clouds-climate interactions from microscopic through macroscopic points of view. He will address the way that man-made aerosol particles can alter the properties of clouds and precipitation, and how such

changes can indirectly affect the Earth's climate as a result. He will also explore the challenges ahead to investigate a multi-body system as complex as the Earth's climate and the methodology to meet these challenges.

Yangang Liu earned his B.S. in 1983 and M.S. in 1989 at the Nanjing Institute of Meteorology, China, and his Ph.D. in 1998 from the Desert Research Institute, University & Community College System of Nevada, all in atmospheric sciences. He joined BNL in 1998 as a research associate and rose to his present title of Scientist in 2006. He is currently working on several projects supported by DOE's Atmospheric Radiation Measurement Program,



the Atmospheric Sciences Program, Scientific Discovery through Advanced Computing, and BNL's Laboratory Directed Research and Development Program. — Liz Seubert

**To join the lecturer for supper at a restaurant off site after the talk, contact Nancy Warren, Ext. 3275 or [nwarren@bnl.gov](mailto:nwarren@bnl.gov).**