Dr. James R. Sowell (Georgia Tech)

How does one bring nighttime astronomical observations into the classroom? How does a teacher—during the school day—show students the craters on the Moon, the rings of Saturn, or the four Galilean moons of Jupiter? One of the greatest drawbacks to teaching Astronomy is the lack of real-time telescopic observations during the school day, and yet this is a very exciting time for astronomical discoveries.

The solution is to access a telescope in a substantially different time zone where it is still night. The Aloha Telescope on Maui has been established by a partnership between Georgia Tech and the Air Force Research Lab. This 11-inch Celestron telescope’s sole purpose is for K-16 education, as it is equipped with a video-camera and is operated remotely via high-speed internet connection. This outreach program allows teachers to have local daytime control of the telescope. When observing the Moon, teachers and students will move the telescope wherever they wish across the highly-magnified lunar surface (~5 arcminute FOV). This telescope enables nighttime astronomical observations to come alive as daytime activities and will be an exciting tool for promoting STEM education. The Aloha Telescope requires minimal online training and is free to use.

The Aloha Telescope is web-controlled at aloha.gatech.edu. The site includes surface feature tours and exercises appropriate for K-12 users, numerous photographs, and background information. Atlanta-area Teacher Quality grants that utilize the facility have already been funded. The Aloha Telescope and website will become accessible later this year. For information, contact Dr. Sowell at jim.sowell@physics.gatech.edu or 404-385-1294.