

# *Minority University Education and Research Partnership Initiative*

*This is the fourth in a series of articles which highlights the programs of the institutions participating in NASA's Minority University Education and Research Partnership Initiative in Space Science (described in Voyages, issue 2)*

## **Partnerships in Astronomy and Astrophysics Education and Research at Southern University**

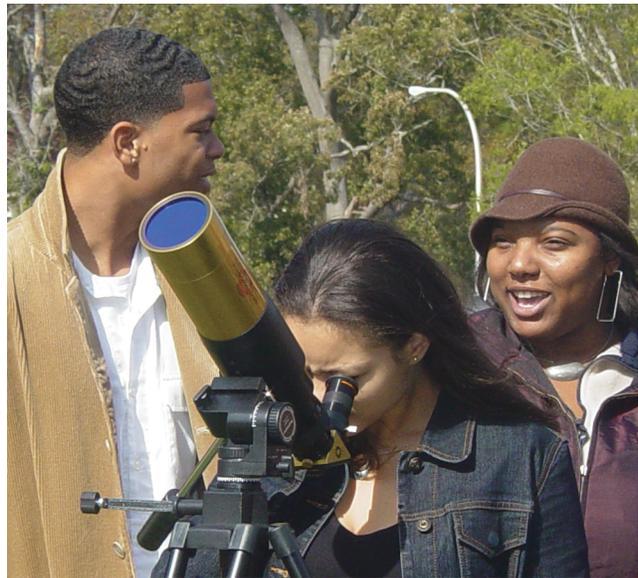
*J. Gregory Stacy, Southern University*

Under the auspices of NASA's Minority University Education and Research Partnership Initiative in Space Science, Southern University, the largest Historically Black College and University (HBCU) system in the country, is pursuing two collaborative research and education projects involving undergraduate students in the areas of experimental high-energy and solar astrophysics. With the Space Science and Particle Astrophysics research group at neighboring Louisiana State University (LSU, Lead Co-I M. Cherry) in Baton Rouge, Southern is collaborating in an experimental detector-development effort related to gamma-ray astronomy. Student participants in the MARGIE (Minute-of-Arc Resolution Gamma Ray Imaging Experiment) project receive broad-based multidisciplinary instruction and hands-on training in state-of-the-art experimental techniques in newly refurbished laboratories.

Southern is also collaborating with space scientists at the Smithsonian Astrophysical Observatory (SAO, Lead Co-I L. Strachan) associated with the Ultraviolet Coronagraph Spectrometer (UVCS) aboard the Solar and Heliospheric Observatory (SOHO) spacecraft. Southern students are being mentored, instructed, and trained in the research skills required to actively participate in ongoing UVCS calibration, data-analysis and scientific studies related to the Sun's corona and the solar wind.

Among the key accomplishments of the past year has been the inauguration of a space-science

lecture series on the Southern campus featuring invited talks by visiting SAO, NASA, and LSU scientists to introduce students to current areas of space research. These visits have already afforded two Southern undergraduates the opportunity to participate in summer research internships, one (G. Simms) at SAO with the SOHO/UVCS group (research mentor: L. Strachan) in Cambridge, Massachusetts, and the other (M. Mbonye) in the Laboratory for High Energy Astrophysics at NASA's Goddard Space Flight Center (research mentor: K. Gendreau).



*Telescope captures attention of Southern students for solar observing.*

These new partnerships have contributed significantly to a major revitalization of the curriculum in astronomy and astrophysics at Southern which had lain dormant for many years. Student interest continues to rise as these and other initiatives have allowed a continued expansion and enhancement of laboratory facilities and equipment. Southern students are also becoming increasingly involved in public-education and outreach efforts at the local level, especially those associated with the Highland Road Park Observatory, a newly established public facility in Baton Rouge. Finally, students and faculty are particularly excited about a recent invitation from their SAO colleagues to become a formal partner in the proposed Advanced Coronagraphic and Spectroscopic Explorer (PI J. Kohl), one of four mission concepts under consideration by NASA for a MIDEX launch in 2007 or 2008, in which extensive student involvement is anticipated.