

Astrophysicist, (TESS Guest Investigator Program Deputy Director) NASA Goddard Space Flight Center

Applications for one astrophysics position are now being accepted, funded through the University of Maryland, Baltimore County (UMBC) and the Center for Research and Exploration in Space Science and Technology (CRESST). The selected candidate would work in the TESS Guest Investigator Program Office, a part of the High Energy Astrophysics Science Archive Research Center (HEASARC) in the Astrophysics Division of NASA's Goddard Space Flight Center, in Greenbelt, Maryland.

The Transiting Exoplanet Survey Satellite (TESS) is a NASA mission to be launched in 2017 to conduct the first space-based all-sky survey in the near-infrared with the goal of finding transiting Earth-sized and larger planets orbiting nearby bright stars. The spacecraft will be placed into a 13.7-day lunar-resonant orbit, where its four wide-angle telescopes with CCD detectors will stare at one 24x96 degree observation sector for two orbits (27 days) then step 27 degrees to the next observation sector. The observation sectors have significant overlap near the ecliptic poles such that some objects can be monitored continuously for up to six months. The prime mission lasts for two years with the possibility of an extended mission. Approximately 25,000 objects per observation sector will be monitored with uninterrupted 2-minute cadence. Science data will be transmitted back to Earth every orbit. Full-frame images with an effective exposure time of ~hours will be transmitted as well, enabling monitoring observations of astrophysical targets of interest as well as the search for unexpected, transient phenomena.

The TESS Guest Investigator Program Office is tasked with maximizing the quality and depth of TESS science productivity, by encouraging the community to leverage the unique properties of the TESS mission to allow investigations in multiple additional areas of astrophysics outside the core program of planet transits, from solar system objects and pulsating stars, to interacting binaries, active galaxies and gamma-ray burst counterparts.

The TESS Guest Investigator Program Office is seeking a high-quality, experienced research scientist to join this effort. The successful candidate will have demonstrated ability to lead independent research based upon photometric data or supplemental investigations, as well as to support and collaborate with the international TESS Guest Investigator Program community. This support includes the development of proposal preparation tools as well as data analysis tools. The candidate should expect to serve as a TESS Guest Investigator Program Deputy Director, and as such to serve as an instrument/mission/data expert, advising a broad array of science teams with their TESS data analysis, and contributing to the development and communication of new TESS science programs. See <http://heasarc.gsfc.nasa.gov/docs/tess/> for further information on TESS and the Guest Investigator Program Office.

The TESS Guest Investigator Program Office is embedded within the High Energy Astrophysics Science Archive Research Center (HEASARC) in the Astrophysics Division of NASA's Goddard Space Flight Center, in Greenbelt, Maryland. The lead institution for TESS is the Massachusetts Institute of Technology (MIT), which hosts the Principal Investigator, Dr. George Ricker. The MIT Lincoln Laboratory is responsible for the cameras. NASA's Goddard Space Flight Center provides project management, systems engineering, and safety and mission assurance. Orbital ATK (OA) builds and operates the spacecraft. The mission will be operated from the OA Mission Operations Center. The TESS Science Center, which analyzes the science data and organizes the co-investigators, collaborators, and working groups (with members from many institutions), is a partnership among MIT's Physics Department and Kavli Institute for Astrophysics and Space Research, the Smithsonian Astrophysical Observatory, and the NASA Ames Research Center. The raw and processed data are archived at the Mikulski Archive for Space Telescopes (MAST), at the Space Telescope Science Institute. The successful candidate will build and maintain strong partnerships with members of the TESS Science Center. In addition, the candidate will serve as the prime interface between the TESS GI Program Office and the HEASARC, assuring that the mission-independent lessons learned from previous HEASARC missions are incorporated into TESS GI Program plans and processes.

The ideal candidate will have demonstrated experience and success working with high-precision CCD photometry, time-series analysis and/or light curve modeling. Strong skills in oral and written communication are essential, as are attention to detail, the ability to self-direct, while at the same time being regarded as a valuable team player. Experience with NASA Guest Observer or Guest Investigator Program support is critical, as is experience leading and winning successful observing proposals. Candidates must have a Ph.D. or equivalent career experience in astronomy or astrophysics, and strong scientific programming skills.

For best consideration submit a Curriculum Vita, list of publications, statement of research interests, and contact information for three references to:

TESS
CRESST/UMBC
Mail Code 660.8, NASA/GSFC
Greenbelt, MD 20771, or
Via e-mail to virginia.c.peles@nasa.gov

Application materials will be accepted until position is filled. Salary and benefits are competitive, commensurate with experience and qualifications. The position is available beginning Winter 2017.

The University of Maryland is an Affirmative Action, Equal Opportunity Employer. Women, minority group members, veterans, and individuals with disabilities are encouraged to apply.