

Scientist in the TESS Guest Investigator Program Office

Applications are now being accepted for a scientist to work in the [Transiting Exoplanet Survey Satellite \(TESS\) Guest Investigator \(GI\) Program Office](#), resident within the Exoplanets and Stellar Astrophysics Laboratory at NASA's Goddard Space Flight Center (GSFC) in Greenbelt, MD. The position is funded through the *University of Maryland College Park (UMCP)* and the [Center for Research and Exploration in Space Science and Technology II \(CRESST II\)](#).

TESS is a NASA Explorer-class mission, led by the Massachusetts Institute of Technology, that launched in April 2018 and began regular science operations in July 2018. The prime mission operated through July 2020, and TESS is currently in its first extended mission. Equipped with four wide-angle cameras and associated CCD detectors, TESS collects high-precision photometry in a red-optical bandpass to enable a near all-sky survey for planets transiting nearby stars. The principal goals of the TESS mission are to detect small planets with bright host stars in the solar neighborhood that are prime targets for detailed characterization with current and upcoming facilities like NASA's James Webb Space Telescope. Science postage stamps are collected frequently for a select number of astrophysical objects, and full-frame images are regularly obtained. These full-frame images enable scientists to perform additional science beyond the principal goal of the TESS mission, including stellar astrophysics programs and searches for transient phenomena (e.g., optical counterparts to gamma-ray bursts) and faint solar system objects (e.g., comets, asteroids).

The TESS GI program enables scientists all over the world to use TESS for their own research by providing opportunities to propose postage stamp targets and/or request funding for data analysis or ground-based observations in support of TESS. The scientist will support the activities of the TESS GI program through mission support and scientific responsibilities. The scientist is expected to be (or become) an expert user of TESS, with a high level of knowledge of the satellite, its data, and the planning/analysis software. The scientist will primarily be responsible for assisting the astronomical community in making the best use of TESS by developing and testing software tools, including web-based proposal preparation tools and data analysis tools (e.g., for light curve extraction and modeling), contributing to the creation and maintenance of website content and other documentation, and answering questions from the astronomical community. The scientist will also be responsible for supporting the annual GI proposal review panel and participating in scientific and public outreach activities.

This full-time position is anticipated to be long term. The programmatic support responsibilities described above are estimated to require 80% of the time, with the remaining time available for independent scientific research related to TESS, including leading and contributing to peer-reviewed scientific journal articles.

Candidates for the position must have a Ph.D. in Astronomy, Physics, or a related field. The successful candidate is expected to have demonstrated experience in high-precision photometric data analysis, time-series analysis, light-curve modeling and/or time-domain astronomy. Excellent collaboration and communication skills, along with demonstrated ability to function well as a member of a team, are essential. Candidates would benefit from having strong software

development skills and familiarity with Python/AstroPy and GitHub. Additional experience in TESS data analysis, web development, or science support is desirable but not required.

The position will remain available until filled. Applications received by Friday, December 17, 2021, will receive full consideration. Candidates should provide a one-page cover letter; CV with a complete publications list; a 2-3 page statement highlighting experience with, and interest in, supporting scientific research performed by the broader community (e.g., developing software for the community, managing an observing program) as well as summarizing research experience and interests; and contact information for three references via email to Ms. Katherine McKee (katherine.s.mckee@nasa.gov). The start date for the position is flexible; it would be helpful for candidates to comment on their possible or desired start dates.

For more information about TESS and the GI program, contact Dr. Knicole Colón (knicole.colon@nasa.gov). For information on CRESST II or UMCP, contact Dr. Tracy Huard (thuard@umd.edu).

Offers of employment are contingent on completion of a background check. A prior criminal conviction or convictions will not automatically disqualify a finalist from employment in the position.

All students, faculty, and staff are required to be vaccinated against COVID. Proof of full vaccination will be required before the start of employment in order to work at any University of Maryland location.

The University of Maryland, College Park, an equal opportunity/affirmative action employer, complies with all applicable federal and state laws and regulations regarding nondiscrimination and affirmative action; all qualified applicants will receive consideration for employment. The University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, national origin, physical or mental disability, protected veteran status, age, gender identity or expression, sexual orientation, creed, marital status, political affiliation, personal appearance, or on the basis of rights secured by the First Amendment, in all aspects of employment, educational programs and activities, and admissions.