

GSFC Post Doc in Gamma Ray Burst Research with BurstCube

Applications are now being accepted for a Post-Doctoral Research Associate to work on hardware, software, and/or science analysis in the development and ultimate flight of BurstCube (<https://asd.gsfc.nasa.gov/burstcube/>), funded through the University of Maryland, Baltimore County (UMBC) and the Center for Research and Exploration in Space Science and Technology II (CRESST II).

The first direct detections of Gravitational Waves (GWs) has brought astronomy into a new era of discovery. The search for electromagnetic counterparts to GW sources is now more important than ever before. We have recently been approved to design, build, and fly a CubeSat to detect astrophysical counterparts to GW signals as well as other gamma-ray transients. BurstCube will be a '6 U' CubeSat (10 cm x 20 cm x 30 cm) composed of 4 scintillator detectors read out by arrays of silicon photomultipliers. BurstCube will automatically detect gamma-ray transients onboard (astrophysical, solar, and terrestrial), sending rapid alerts to the ground to enable follow-up observations.

BurstCube development is just beginning, and is scheduled to launch in 2021 for a 1-year mission. We welcome applicants that can contribute to instrument hardware development (including the electronics and mechanical assembly), spacecraft design and fabrication, and/or ground systems, operations, scientific analysis software and pipelines, as well as contributing to scientific data analysis and publications. We are committed to building a diverse team and encourage applications from women, racial and ethnic minorities, individuals with disabilities and veterans. Applicants should hold a Ph.D. in astrophysics or a related field with relevant experience including experimental particle physics, astrophysics, astronomy, and/or solar physics.

BurstCube is being developed in the Astroparticle Physics Laboratory at NASA/GSFC. In addition to BurstCube, we are involved in the development of new instrumentation for gamma-ray astrophysics such as AMEGO, a Compton scattering and pair conversion instrument utilizing silicon strips. This lab participates in the *Fermi* Gamma-ray Space Telescope mission, involving an international collaboration of particle physicists and astrophysicists. We are involved with many aspects of the *Fermi* mission, including simulations, development of data analysis techniques, and science analysis. The applicant may have the opportunity to be involved in these projects.

For best consideration submit a Curriculum Vita, list of publications, statement of research interests, and contact information for three references by March 2, 2018 (application materials will be accepted until the position is filled) to:

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

Salary and benefits are competitive, commensurate with experience and qualifications. The position is available immediately. The initial term of Appointment will be two years, renewable. For more information about BurstCube, contact Dr. Jeremy Perkins (jeremy.s.perkins@nasa.gov). For information on CRESST II or positions with UMBC, contact Dr. Jane Turner (csst@umd.edu).

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