Available Postdoc Position

RUA

Position ID Number	100014	
Supervisor Name	UC Berkeley	Space Sciences Laboratory
Supervisor Title	Laboratory	
Phone Number		
Supervisor Email	cgarrie@berkeley.edu	
Lab Website	https://www.nustar.caltech.edu/ ; https://cosi.ssl.berkeley.edu/	
Affiliated Institution	UC Berkeley	
Contact Name		
Contact Title		
Contact Email Address		
Contact Phone Number		
Date of Best Consideration	12/18/21	
Application Close Date	1/19/22	
Anticipated Start Date	5/15/22	
Job Website	https://aprecruit.berkeley.edu/JPF03271	
Job Location	Berkeley	
Is remote work possible?	No	
CIP Codes	3.2 Astronomy and Astrophysics	

Job Description	Established six decades ago, UC Berkeley's Space Sciences Laboratory (SSL) was the realization of NASA's vision to gather many of the most innovative and dedicated science minds in one place at the University of California, Berkeley. On the hill above Berkeley, physicists, researchers, biologists, engineers and technicians worked in unison: interacting, learning from one another, leading, challenging and inspiring one another in creating cutting-edge space science instrumentation and conducting top research. Through sixty years of NASA-funded support, their efforts, and those of hundreds of dedicated students and staff, have brought about myriad highlights, such as the space science missions of S3-3, ISEE, Polar, FAST, Van Allen Probes, Cluster, IMAGE, THEMIS, MAVEN, Parker Solar Probe, and ICON. All have contributed to new discoveries about the physics of space and initiated marked new advances in instrumentation technology. The Space Sciences Laboratory invites applications for a postdoctoral research position to work with the High-Energy Astrophysics Group. The group's current projects range from the integration and testing of gamma-ray instrumentation to the development of data-analysis software tools for the next generation of gamma-ray telescopes, to the analysis of data from existing high-energy satellites. The astrophysics related data-analysis efforts are focused on the Nuclear Spectroscopic Telescope Array. Possible job duties include the study of the hard X-ray evolution of the supernova remnant G1.9+0.3 and the level of its Ti-44 emission or applying high-density reflection models to the spectra of accreting black holes. The instrumentation and analysis software development work is focused on the Compton Spectrometer and Imager , which is a NASA Small Explorer satellite planned for launch in 2025. COSI observes in the 0.2-5 MeV energy band and will study 511 keV electron-positron annihilation emission, nuclear lines, accreting black holes, and gamma-ray bursts. Possible job duties include assisting engineers with the testing, calibration, and evaluation of the performance of the COSI detectors; participating in the development of the COSI data-analysis pipeline and testing it with simulations as well as astrophysical observations from the COSI 2016 balloon flight; improving the COSI event selections and background reductions using machine learning; and finally applying some of these new tools to the analysis of relativistic electron precipitation events observed during the 2016 COSI balloon flight. The selection and balance between the projects chosen for this position will depend on the applicants experience and interests as well as project needs.
Required Qualifications	PhD or equivalent international degree (at time of start) No more than 3-years post PhD research experience
Desired Qualifications	PhD or equivalent international degree in physics, astronomy, or a closely related field. Experience with high-energy data and understanding or experience with high-energy satellite instrumentation.
Minimum Monthly Salary	depends on experience
Maximum Monthly Salary	$0
Special Instructions for Applicants	Curriculum Vitae , Cover Letter (Optional), Statement of Research Statement on Contributions to Advancing Diversity, Equity, and Inclusion, Publications List (Optional) , 3 letters of reference Apply link: https://aprecruit.berkeley.edu/JPF03271
Opportunities for teaching?	No
Opportunities for supervision/mentoring?	Yes

Opportunities for communitiy outreach?	Yes	
Position keywords	astrophysics	high-energy