

ACROSS Incubators Program

The Astrophysics Cross-Observatory Science Support (ACROSS) team is soliciting applications for its first iteration of the ACROSS Incubators program. ACROSS is a NASA Physics of the Cosmos Program initiative with the goal of providing critical infrastructure and coordination services that enable astronomers to leverage NASA's fleet alongside ground-based facilities and international observatories in a cohesive, responsive network for groundbreaking TDAMM research. To do so, ACROSS is developing publicly available software tools to facilitate community-wide TDAMM research efforts. These include APIs and Python tools to provide standardized mission observation schedules, target visibility calculators, and coincident observation overlap calculators. These tools are available from the ACROSS [website](#) and [GitHub page](#).

The ACROSS Incubators is a year-long funding opportunity to support utilizing ACROSS's software infrastructure to achieve novel scientific results. Selected applicants will work remotely at their home institutions with the opportunity to visit NASA Centers to collaborate with the ACROSS team as needed. They will bring their science use cases or infrastructure needs which can be facilitated by the ACROSS system. They will work alongside the ACROSS development team, composed of astrophysics support scientists and full-stack software developers, to integrate existing tools and develop new tools for their research efforts.

This opportunity is open to graduate students who have advanced to candidacy as well as postdoctoral researchers who have received their degrees within the last 5 years. As part of this effort, ACROSS expects to support an applicant's full-time work from June 1, 2026 to August 1, 2026 (dates pending), as well as approximately 20% FTE work during the remainder of the academic year, contingent on satisfactory performance and the availability of funds. Additionally, ACROSS will support two visits to NASA centers during the summer (Goddard Space Flight Center and Marshall Space Flight Center) as well as visits between members of the ACROSS team and the applicants during the remainder of the year, and attendance at a conference as a sponsored ACROSS early-career researcher. Selected applicants will be supported as external consultants through Southeastern Universities Research Association (SURA).

Required Qualifications:

Applicants must be graduate students who have advanced to candidacy or postdoctoral researchers who have received their degrees within the last 5 years. We are seeking applicants who conduct research in any subfield of TDAMM astrophysics. The successful applicant will have:

- A strong vision for a TDAMM research project that will benefit from the ACROSS system
- A commitment to and passion for developing open-source software to enable TDAMM science
- An eagerness to work alongside an agile software development team

Preferred technical skills:

- Proficiency in using Python (including astropy, numpy, pandas, etc.) in astronomical research
- Experience utilizing database systems (e.g., postgres, sqlalchemy)
- Familiarity with astronomical observing resources and observation planning

Application material:

- Academic CV
- Two-page research proposal, describing the applicant's research interests, how their research relates to ACROSS, and plans for utilizing ACROSS's software infrastructure in their work over the next year
- A letter of support from the applicant's current advisor

Contact:

To apply, email application materials to across@lists.nasa.gov. Questions about the program can be directed to across@lists.nasa.gov.

Applications will be reviewed beginning April 14th; review will continue until positions are filled.