

LSST Discovery Alliance

Expansion Partnership Program



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Our goal is to maximize the impact of Rubin LSST through support from member institutions, grants from foundations, and donations from corporations and private donors. We are committed to changing how science is done, how it's funded, and who's at the table.

What we do - We facilitate resources and funding to help scientists study data of this unprecedented scale and complexity.

How we do it - We develop bold programs and funding opportunities that accelerate transformative breakthroughs in astrophysics through inclusion, scientific networks, and multi-disciplinary collaboration. We collaborate closely with Rubin Observatory and Science Collaborations.

Foundation Support: Schmidt Futures, Brinson, Heising-Simons, Templeton, Research Corp, Moore



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<https://lsstdiscoveryalliance.org/>

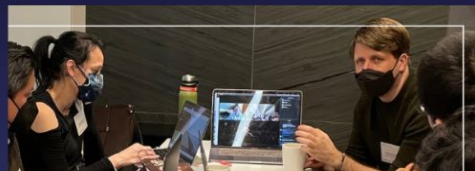
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Driving transformative discoveries in astrophysics

Credit: CTIO/NOIRLab/DOE/NSF/AURA

A movie of the Universe is about to be made

Once the state-of-the-art [Vera C. Rubin Observatory](#) in Chile is completed in 2025, the [Legacy Survey of Space and Time](#) (Rubin LSST) will begin. The observatory and [camera](#) were designed to produce the widest, deepest, and most complete map of the Universe at incredible speed.



Current Programs



- **Catalyst Fellowship** - This flagship program is a unique three- to four-year fellowship for post-doctoral researchers in both astrophysics *and* social sciences. (Director, J. Sokoloski - LSST-DA)
- **LINCC Frameworks Project** - This ambitious five-year program will develop advances in software infrastructure for the scientific community to help effectively analyze the enormous volume and complexity of Rubin LSST data. (PIs A. Connolly - UW, R. Mandelbaum - CMU, J. Sokoloski - LSST-DA)
- **Data Science Fellowship** - This innovative two-year training program develops diverse cohorts of astronomy students with the essential skills for science with large, complex datasets. (Director, A. Miller - Northwestern)

Current Programs



- **Small Grants Program** - Periodic calls for small grants are designed to provide members with agile and timely support to prepare for Rubin LSST science.
- **Inclusive Collaboration Initiative** - This funded suite of programs incentivize inclusion through childcare support, best practices in inclusive collaboration, and institutional partnerships.
- **Summer Student Program** - A program for students at member institutions to attend the annual Rubin LSST meeting, present LSST-related research, and receive professional development. (Director, R. Oelkers - TAMU)

Inclusive Collaboration Initiative



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An initiative to (i) build diversity, equity, and inclusion into all Discovery Alliance programs and (ii) help embed practices and structures that foster DEI more broadly into the Rubin LSST science community.

Pilot Childcare Support Program
Inclusive Collaboration Proposal Call
Expansion Partnership Program

Let me know if you would like to attend a sponsored focus-group lunch
Thursday



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This program was designed to:

- make LSST science accessible to research communities that might otherwise be excluded.
- increase the diversity of LSST Discovery Alliance member institutions and support their active participation in LSST-DA, so that our scientific programs are designed to position a diverse and inclusive community to participate in Rubin LSST science.

We incorporated experience from the Rubin Community Science Team DPO work, Street & Bianco Leveling the Playing Field program, and the SDSS4 Faculty And Student Teams program.



Expansion Partnership Program



The program is structured to support engagement of small, under-resourced, and/or under-represented institutions in Rubin LSST science.

- This engagement is via partnerships with institutions well integrated into Rubin LSST science and via membership in the LSST Discovery Alliance.
- LSST-DA membership will position faculty and students at Expansion Institutions to participate in (i) Rubin LSST science networks and (ii) the design and development of new programs to support their use of Rubin LSST data.

Basic information about becoming a member -
<https://www.lsstcorporation.org/node/385>



What is an Expansion Partnership?



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An Expansion Partnership is between two institutions (or consortia), one of which classifies as an “Expansion Institution” and the other of which is an institution that is already established within the Rubin LSST science community. Through this program, a paying member institution may choose to confer LSST-DA membership to an Expansion Institution at no additional cost to anyone. Each institution in the partnership will be a full institutional member of LSST-DA. All member institutions benefit from access to resources, influence and visibility, and participating in a like-minded community that wants to establish new norms of inclusive participation in astrophysics.

The paying member of an Expansion Partnership will be expected to:

- Work actively to include the Expansion Institution in their astronomical community and to integrate them into the LSST-DA Institutional Board
- Be publicly recognized as an Expansion Sponsor, on the LSST-DA website



Expansion Partnership Benefits



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Benefits for paying members of the partnership to participate include:

- Concrete and direct contribution to inclusive participation in STEM through a structured program and with a cohort of institutions with similar goals;
- Recognition as a leader in community building and inclusion;
- Opportunity to pursue support for membership costs from individuals or funding organizations that prioritize unique and low-cost approaches to building regional connections, building community, and/or increasing inclusive participation in STEM.
- Funding to travel to LSST-DA Board Meetings and send a student on a research trip.



Expansion Partnership Benefits



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Benefits for expansion members of the partnership to participate include:

- Shape plans and programs through the Institutional Board and elected Executive Board;
- Integration in a network of larger institutions;
- Access to funding and resources that are prioritized for institutional members;
- Increased institutional visibility among an international coalition of LSST-DA members;
- Access to the research kick-off funding, student travel resources, and LSST-DA Board Meeting participation funding needed to take advantage of the above benefits (if this proposal is approved).
- Kickoff funding to establish initial engagement.
- Annual funding to travel to LSST-DA Board Meetings, to send a student on a research trip.



Expansion Partnership Funding



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Funded support for 10 partnerships that initiate between October 2023 and October 2025.

For each partnership:

- \$14,000 in one-time support to invest in each expansion institution's success.
- \$5,000 in annual support for partnership student participation in Rubin LSST-related research travel - e.g. a conference or to another institution.
- \$3,600 in annual support for expansion sponsor and expansion institution to attend annual LSST-DA Board Meeting.
- Sponsored cohort development meeting in 2024 and 2025.



Program Collaborators



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1. Dr. **Kathryn Johnston** (Columbia University, LSST-DA Vice-Chair of the Board) - Program co-lead.
2. Dr. **Jeno Sokoloski** (Columbia University, Catalyst Fellowship Director)
3. Dr. **Tim Sacco** (NOIRLab/University of Arizona, Catalyst Fellow) - Social scientist who specializes in research inclusion and cross-institutional partnerships.
4. Dr. **Gloria Fonseca Alvarez** (Rubin Observatory) - On Rubin Observatory's Operations Community Science Team (CST). Invested in inclusive Rubin Data Preview access and engagement activities with researchers at small, minority-serving, and/or underserved institutions.
5. Dr. **Bryan Scott** (Northwestern University) - LSST-DA Data Science Fellowship Program (DSFP) postdoctoral fellow. The DSFP centers inclusive participation in LSST science students from diverse backgrounds. Bryan brings leadership experience in inclusion-fostering networks, from his former role in the APS Inclusion, Diversity, and Equity Alliance (IDEA) network of physicists.

