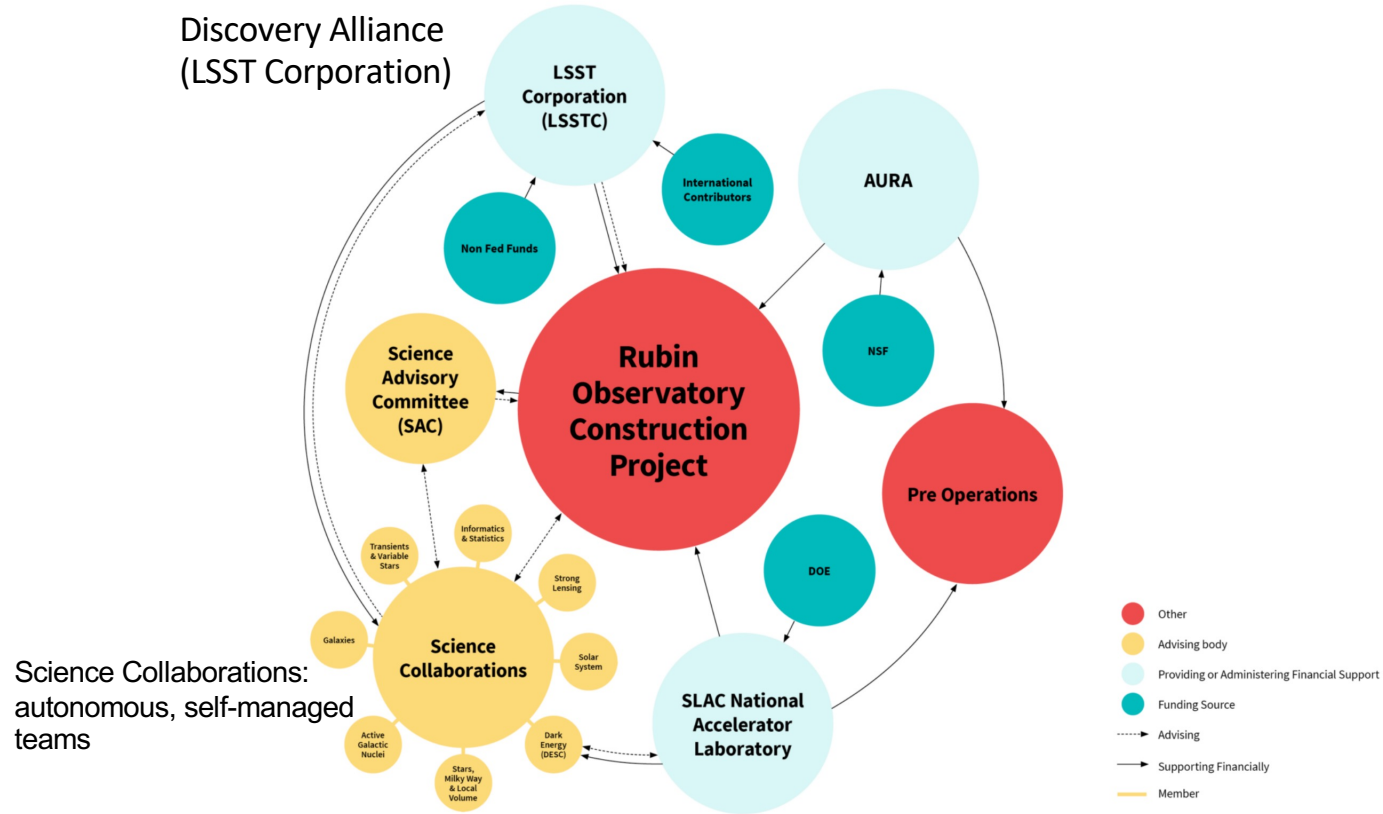


LSST DISCOVERY ALLIANCE

Sara (Rosaria) Bonito - she/her
rosaria.bonito@inaf.it

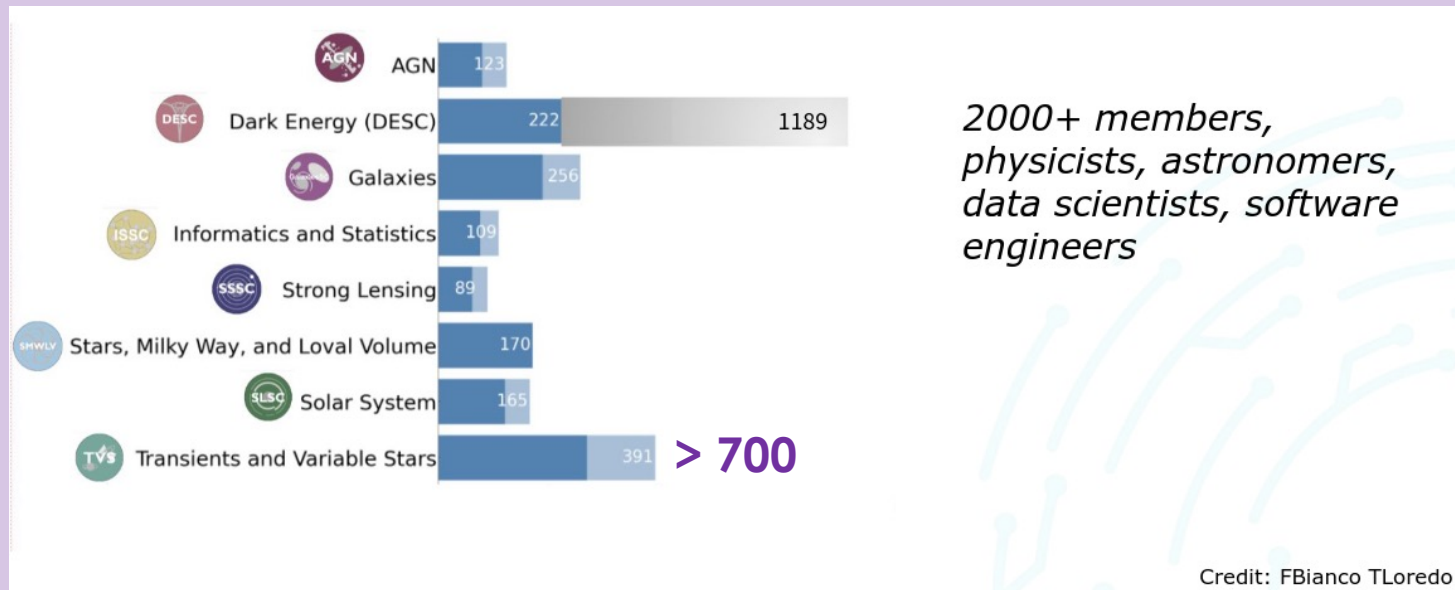
INAF - Osservatorio Astronomico di Palermo
Rep. INAF in LSST DA
Board of Director

Rubin LSST Ecosystem



Rubin LSST

Science collaborations



Transients and Variable Stars Science Collaboration

CO-CHAIRS

Igor Andreoni

University of Maryland

NASA Goddard Space Flight Center



Sara Bonito

INAF

Osservatorio Astronomico di Palermo



<https://lsst-tvssc.github.io/>

CONTACT

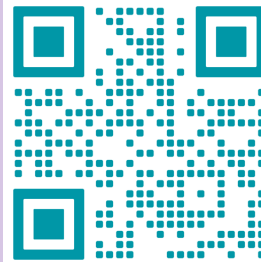
Contact the co-Chairs for more information:

Igor Andreoni - andreoni at umd.edu

Sara Bonito - rosaria.bonito at inaf.it



<https://youtu.be/MXQQzbC5HxY>



INTERNATIONAL COLLABORATION

MEMBERS

TVS HAS OVER 400 MEMBERS IN 17 COUNTRIES WORLDWIDE

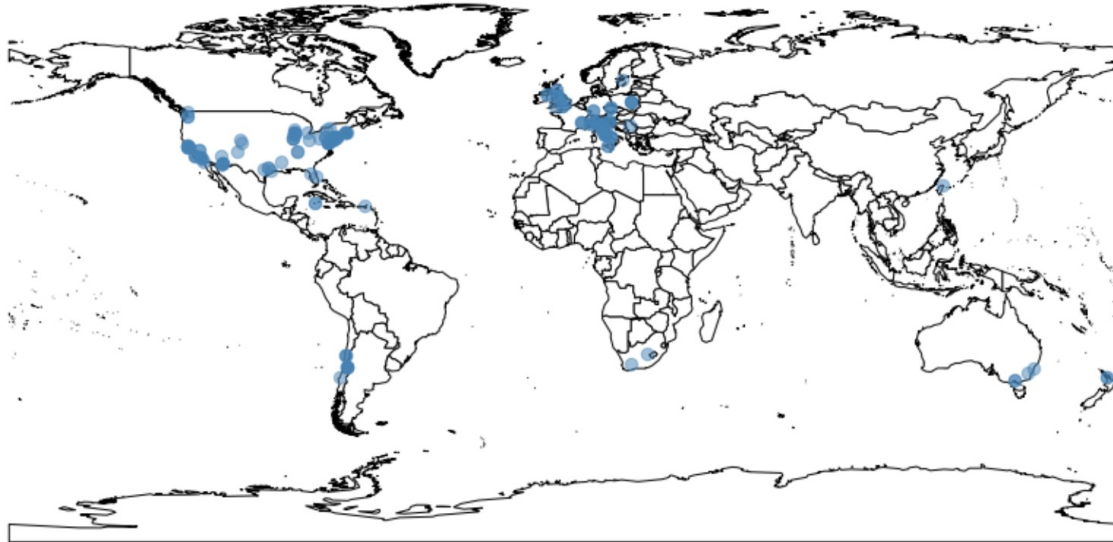
700

33 in-kind projects for which TVS is recipient

JUNE 2020



VERA C. RUBIN
OBSERVATORY



SUBGROUPS



JEDI: JUSTICE, EQUITY, DIVERSITY & INCLUSION

coordinators: [Sara Bonito](#), INAF -
[Osservatorio Astronomico di Palermo](#)



ANOMALIES AND TRUE NOVELTIES

coordinator: [Federica Bianco](#),
University of Delaware



CLASSIFICATION & CHARACTERIZATION

coordinators: [Nina Hernitschek](#),
Vanderbilt

DATA VISUALIZATIONS AND CHARACTERIZATIONS

coordinators: Sabina Ustamujic, Sally Macfarlane



FAST TRANSIENTS

coordinator:
Shar Daniels, University of Delaware



SUPERNOVAE

coordinators: [Fabio Ragosta](#), UW



TIDAL DISRUPTION EVENTS

coordinators: [Sjoert van Velzen](#),
Leiden Observatory



NON-DEGENERATE ERUPTIVE VARIABLES

coordinators: [Sara Bonito](#), INAF



PULSATING VARIABLES

coordinators: [Kelly Hambleton](#),
Villanova



INTERACTING BINARIES

coordinator:
[Andrej Prsa](#), Villanova [Paula Szkody](#),
UW



MICROLENSING SUBGROUP

coordinators: [Somayeh Khakpash](#),
UDelaware



MULTIWAVELENGTH CHARACTERIZATION AND COUNTERPARTS

coordinators: [Raffaella Margutti](#),
NorthWestern

DISTANCE SCALES

coordinators: Marcella Marconi, INAF - Osservatorio
Astronomico di Capodimonte Lovro Palaversa, Ruder
Bošković Institute

TASK FORCES



SURVEY STRATEGY TASK FORCE

Coordinator: Rachel Street

This task force coordinates work by TVS members relating to all aspects of survey strategy, in particular working on papers for the planned special edition publication of Cadence Notes. The group also coordinates with similar task forces from other Science Collaborations with overlapping science interests.

DATA PREVIEW 0 TASK FORCE

Coordinator: Sara Bonito
Vincenzo Petrecca

This task force is working on a range of projects undertaken for Data Preview 0, and serves as a forum for members to share their progress and troubleshoot issues. In the course of these projects, members will evaluate the functionality of the Rubin Science Platform for their science.

SOFTWARE TASK FORCE

Coordinator: Federica Bianco

All of the science that TVS will do during LSST will depend on having access to software tools capable of handling LSST data, the rate at which it is delivered, and interfacing with key services in the Rubin "ecosystem" such as alert brokers and the Rubin Science Platform. Rubin's recent call to solicit international in-kind contributions has resulted in a number of teams committing to providing software development effort to be guided by TVS towards software that will benefit our members. This task force will help to conceive and design software that needs to be created from scratch or adapted for Rubin, and begin to work with international teams to oversee the development of that software.

CROWDED FIELDS PHOTOMETRY TASK FORCE

Coordinator: Massimo Dall'Ora

This task force will continue the productive collaboration started in previous years. It will continue to evaluate the quality of photometry that can be produced from Rubin data products in crowded star fields, and its application for variable star science. We suggest this task also focuses on writing a comprehensive report of their activities up to now.

COMMISSIONING TASK FORCE

Coordinator: Markus Rabus

This task force will liaise with the Rubin commissioning staff, continuing to provide scientific input on activities and observations that benefit TVS science in the commissioning phase of the project.

TVS ROADMAP

<https://doi.org/10.1088/1538-3873/acdb9a>

(Peer reviewed paper, Hambleton et al., PASP)

Microlensing
Eclipsing Binary Stars
Cataclysmic Variables
Intermediate-Luminosity Optical Transients
Light Echoes of eruptions and explosions
EM counterparts of GW events
Neutron Star Binaries
Black Hole Binaries
Supernovae
Tidal Disruption Events



Young stellar objects
Pulsating Stars
Cepheids and RR Lyrae Stars
Long Period Variables
Brown Dwarfs
GRB
Blazars
Inclusion
Alert Brokers
SETI

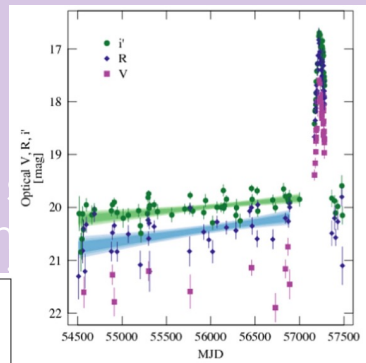
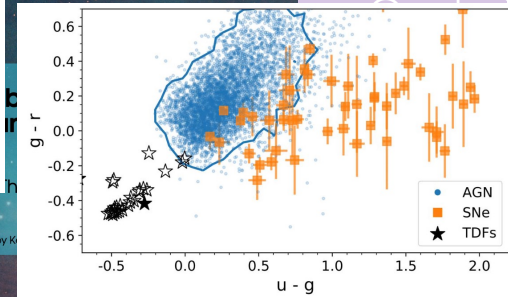
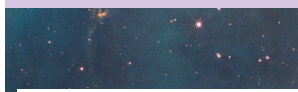
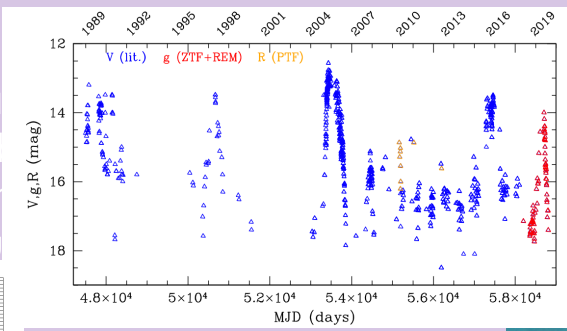
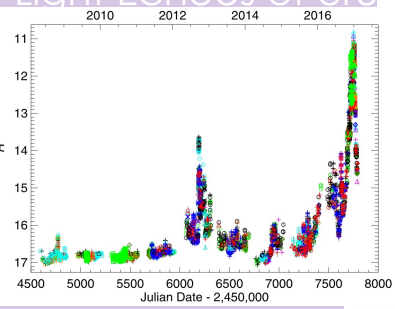


TVS ROADMAP

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(Peer reviewed paper, Hambleton et al., PASP)

Microlensing
 Eclipsing Binary Stars
 Cataclysmic Variables
 Intermediate-Luminosity
 Light Echoes of eruptions

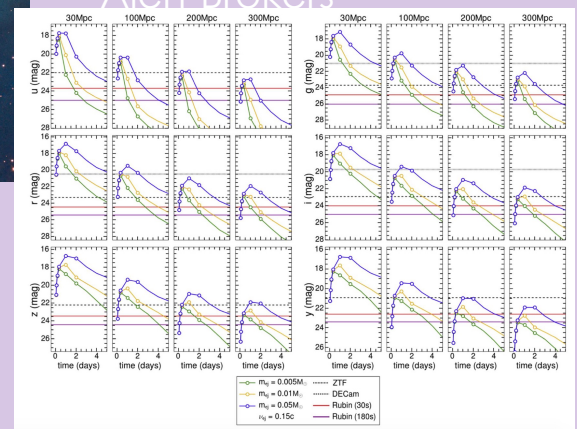
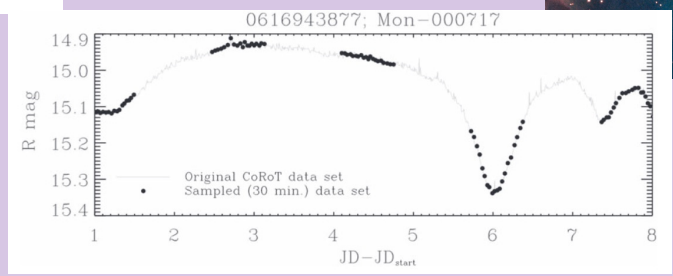


Young
 Pulsars

ars

dwarfs

Asteroid
 Breakers



Rubin LSST Survey Strategy Optimization

- Preparing to Discover the Unknown with Rubin LSST: Time Domain** - X. Li+ 2022 ApJS 258 2
- Blazar Variability with the Vera C. Rubin Legacy Survey of Space and Time** - C. M. Raiteri+ 2022 ApJS 258 3
- The Impact of Observing Strategy on the Reliable Classification of Standard Candle Stars: Detection of Amplitude, Period, and Phase Modulation (Blazhko Effect) of RR Lyrae Stars with LSST** - N. Hernitschek+ 2022 ApJS 258 4
- Optimizing Cadences with Realistic Light-curve Filtering for Serendipitous Kilonova Discovery with Vera Rubin Observatory** - I. Andreoni+ 2022 ApJS 258 5
- Give Me a Few Hours: Exploring Short Timescales in Rubin Obs. Cadence Simulations** - E. Bellm, ..., IA+ 2022 ApJS 258 13
- Target-of-opportunity Observations of Gravitational-wave Events with Vera Rubin Obs.** - I. Andreoni+ 2022 ApJS 260 18
- The LSST Era of Supermassive Black Hole Accretion Disk Reverberation Mapping** - A. B. Kovačević+ 2022 ApJS 262 49
- Young Stellar Objects, Accretion Disks, and Their Variability with Rubin Observatory LSST** - R. Bonito & Venuti+ 2023 ApJS 265 27
- Light-curve Recovery with the Vera Rubin Observatory's LSST. I. Pulsating Stars in Local Group Dwarf Galaxies** - M. Di Criscienzo+ 2023 ApJS 265 41
- Light-curve Recovery with Rubin-LSST. II. Unveiling the Darkness of the Galactic Bulge (VESTALE) with RR Lyrae** - M. Di Criscienzo+ 2024 ApJS 273 35
- LSST Survey Strategy in the Galactic Plane and Magellanic Clouds** - R. A. Street+ 2023 ApJS 267 15
- Rubin Observatory's Survey Strategy Performance for Tidal Disruption Events** - K. BučarBricman+ 2023 ApJS 268 13
- An Evenly Spaced LSST Cadence for Rapidly Variable Stars** - E. Feigelson + 2023 ApJS 268 11
- Rubin LSST Observing Strategies to Maximize Volume and Uniformity Coverage of Star-forming Regions in the Galactic Plane** - L. Prisinzano + 2023 ApJS 265 39
- Microlensing Discovery and Characterization Efficiency in the Vera C. Rubin Legacy Survey of Space and Time** - N. S. Abrams, M. Hunterdmark et al., ApJS 2025, 276, 10
- Kilonova parameters estimation with LSST at Vera C. Rubin Observatory** – Ragosta et al., ApJS 2024, 966, 214
- Every Datapoint Counts: Stellar Flares as a Case Study of Atmosphere Aided Studies of Transients in the LSST Era** - Clarke et al., ApJS 272, 41
- Discovering Cataclysmic Variables from the Rubin Observatory LSST** Buckley et al. 2025, 281, 6



Rosaria (Sara) Bonito dal 2023
(succeedendo ad Adriano Fontana) in qualita' di:

- rappresentante Italia (INAF)
- membro Board of Directors
- membro Admissions Committee
 - richiesta 2025 altro membro Audit and Financial Committee: Massimo Brescia

The Discovery Alliance Leadership Team



DR. BETH WILLMAN

CHIEF EXECUTIVE OFFICER



DR. MICHAEL WOOD-VASEY

PRESIDENT, BOARD OF DIRECTORS



ELIZABETH HEILE

DIRECTOR OF FINANCE &
ADMINISTRATION



AMANDA PRESTON

DIRECTOR OF STRATEGIC
ENGAGEMENT & PHILANTHROPY



DR. JENO SOKOLOSKI

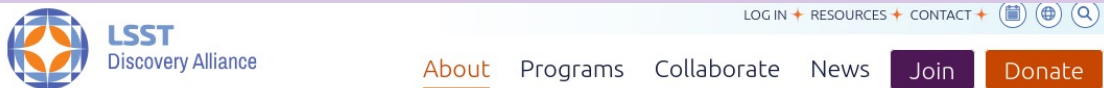
CHIEF SCIENTIST AND
DIRECTOR, LINCC

Board of Directors

- **Adam Bolton**,
SLAC/Stanford University
- **Rosaria (Sara) Bonito**,
Istituto Nazionale di
Astrofisica (INAF)
- **James Davenport**,
University of Washington
- **Larry Gladney**,
Yale University
- **Jenny Greene**,
Princeton University
- **Buell Jannuzi**,
University of Arizona
- **Kathryn Johnston**,
Columbia University
- **Jeremy Kubica**,
Director of Engineering for the LINCC
Frameworks team
- **Pat McCarthy**,
NOIRLab
- **Gautham Narayan**,
University of Illinois
- **Markus Rabus**,
Universidad Católica de la Santísima
Concepción (UCSC)
- **Risa Wechsler**,
Stanford University
- **Michael Wood-Vasey**,
University of Pittsburgh



LSST Discovery Alliance



Our Staff and Board of Directors

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Board of Directors

- **Adam Bolton**, SLAC/Stanford University
- **Rosaria (Sara) Bonito**, Istituto Nazionale di Astrofisica (INAF)
- **James Davenport**, University of Washington
- **Larry Gladney**, Yale University
- **Jenny Greene**, Princeton University
- **Buell Jannuzi**, University of Arizona
- **Kathryn Johnston**, Columbia University
- **Jeremy Kubica**, Director of Engineering for the LINCC Frameworks team
- **Pat McCarthy**, NOIRLab
- **Gautham Narayan** (*acting board member*), University of Illinois
- **Markus Rabus**, Universidad Católica de la Santísima Concepción (UCSC)
- **Risa Wechsler**, Stanford University
- **Michael Wood-Vasey**, University of Pittsburgh

14 Board Members/42 Member Institutes in LSST DA



LSST Discovery Alliance will host the 2025 Week of Engagement in Tucson, Arizona, **November 17–21, 2025**. This annual gathering brings together scientists, fellows, educators, and leaders from across the Rubin Observatory ecosystem for a week dedicated to collaboration, community building, and shared learning.

Throughout the week, participants will take part in a range of activities, including the Catalyst Symposium, collaborative hack sessions, scientific plenaries, professional development breakouts, **Board of Directors** and **Member Representatives** meetings, and opportunities for informal connection. The program is designed to highlight the work of the Rubin LSST community, surface new ideas, and strengthen partnerships across institutions.

LSST Discovery Alliance's Singular Response

Our purpose is to ensure that any scientist with a great question for the Legacy Survey of Space and Time will have access to the resources needed to answer it.

These resources include:

1.

LSST-specific software engineering and data computation tools and support

2.

Training and skill-building for working with tools for massive datasets

3.

Networks for global collaboration and professional development at all levels, from undergraduates to senior researchers



Our Distinctive Approach

We remove barriers to breakthrough science through interconnected programs that leverage the resources and expertise of our global alliance and the decades of experience we have with all aspects of the Rubin LSST Project.

Active major projects

- Catalyst Fellowship funded by the John Templeton Foundation—an interdisciplinary LSST-focused prize postdoc fellowship with structured mentorship and leadership training.
- LINCC Frameworks—an ambitious program to develop state-of-the-art analysis techniques and software capable of meeting the scale and complexity of LSST.
- LSST-DA Data Science Fellowship Program—a big data training and networking program for astrophysics graduate students.



The Time is Now

After 25 years of planning and construction, the first Rubin Observatory images have been taken. New software and data technologies for maximizing Rubin data are becoming available, but hard work is needed to make them widely accessible.

What we do now will have a deep impact on LSST and future projects based on huge, open, scientific datasets in the era of AI.

We continue this work in the face of unprecedented challenges in the United States to basic science funding and principles. LSST-DA has a track record of delivering broadly impactful scientific programs and we offer a unique single focal point for the full LSST science community.

With support from individuals, foundations, and corporations, we work to seize the limitless scientific opportunity of LSST. We invite your engagement with this work.

New Projects for First Light



Low-cost, Agile Initiatives:

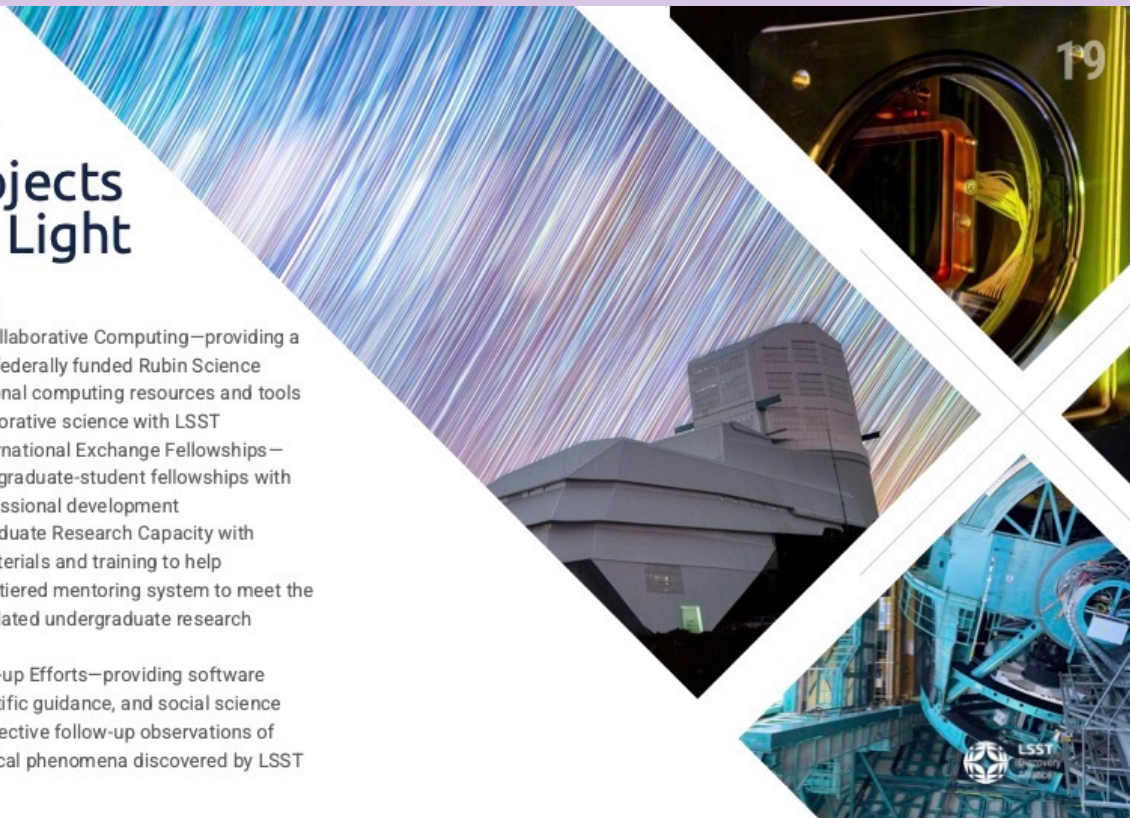
- Project Dovetail—joining scientists with software and data science experts through a novel approach that utilizes a collective of engineering consultants and scientists with software industry experience.
- Catalyst Postdoc Alliance—building a global network of postdocs conducting LSST-related research.

- Robust code
- Tutorials and documents
- User-friendly interface
- 30 hr Vs. hundreds hr
- Conversion in Python

New Projects for First Light

New Major Directions:

- LINCC Center for Collaborative Computing—providing a bridge between the federally funded Rubin Science Platform and additional computing resources and tools necessary for collaborative science with LSST
- Rubin Graduate International Exchange Fellowships—LSST-focused prize graduate-student fellowships with mentoring and professional development
- Increasing Undergraduate Research Capacity with LSST—providing materials and training to help institutions set up a tiered mentoring system to meet the demand for LSST-related undergraduate research opportunities
- Coordinating Follow-up Efforts—providing software infrastructure, scientific guidance, and social science tools to facilitate effective follow-up observations of transient astrophysical phenomena discovered by LSST



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All images © their respective creators.

Programs by Focus Area

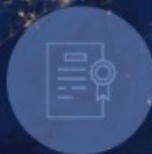


TOOLS

- LINCC Frameworks ¹
- Project Dovetail ²
- LINCC Center for Collaborative Computing ²
- Coordinating Follow-up Observations ²

¹ On-going

² Seeking launch funding



TRAINING

- Catalyst Fellowship and Alliance ¹
- Data Science Fellowship Program ¹
- Undergraduate Summer Program ¹
- International Graduate Exchange Fellowships ²
- Increasing Undergraduate Research Capacity ²



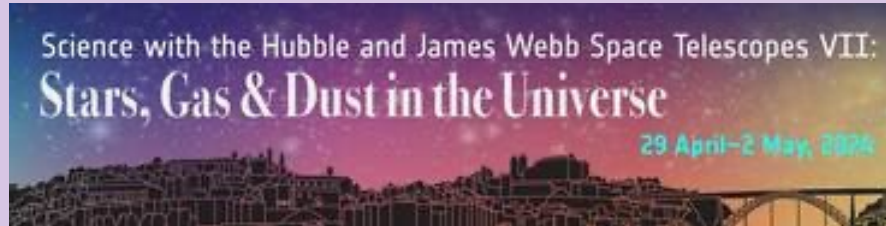
COLLABORATIVE NETWORKS

- Childcare Support ¹
- Science Catalyst Small Grants ¹
- Expansion of Institutional Partnerships ¹



ACKNOWLEDGEMENT

Significant **childcare financial support** to attend as invited speaker



by



- Over half of the initial science papers (5 of 8) from Rubin's Data Preview 1 used [LINCC Frameworks'](#) spatial and temporal analysis framework ([LSDB](#)).
- Four new [institutional members](#) joined LSST-DA from 3 continents;
- A [global alliance of 3 dozen Rubin LSST-focused postdocs](#), launched at LSST-DA's [November Catalyst Symposium](#).
- Dozens of undergraduate and graduate students were trained and built cohorts through the [Data Science Fellowship](#) and [Summer Student Programs](#);
- Professional software engineers provided active, iterative support to more than a dozen science teams through [LINCC Frameworks Incubators](#) and [Project Dovetail](#);
- The [Rubin Undergraduate Network](#) found a home with LSST Discovery Alliance.

- Over half of the initial science papers (5 of 8) from Rubin's Data Preview 1 used [LINCC Frameworks'](#) spatial and temporal analysis framework ([LSDB](#)).

LINCC Frameworks develops state-of-the-art analysis techniques that can meet the scale and complexity demanded by the Vera C. Rubin Observatory Legacy Survey of Space and Time (Rubin LSST) data.

Through interactions with the community, we will continually refine the plans, identify new opportunities to collaborate, coordinate with groups already working in these areas, and seek other areas where software infrastructure development could strongly impact community software development for LSST. For a more comprehensive description of technical projects, including technical documents, visit [the team's wiki page](#).

- Dozens of undergraduate and graduate students were trained and built content



WHAT IS LSDB

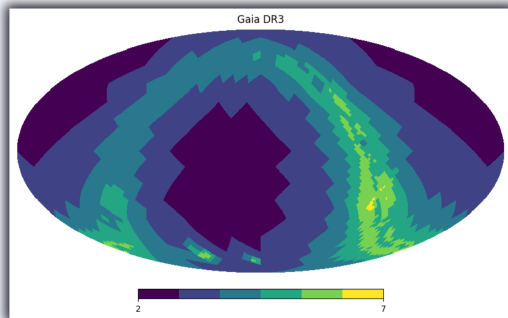
A framework for spatial analysis of extremely large astronomical surveys

Designed to enable querying and crossmatching of Q(1B) sources. It addresses large-scale data processing challenges, in particular those brought up by LSST.

Built on top of Dask to efficiently scale and parallelize operations across multiple workers, it leverages the [HATS](#) data format for surveys in a partitioned HEALPix (Hierarchical Equal Area IsoLatitude Pixelization) structure.

[Source Code](#)

[Tech Talks](#)



A HATS partitioning schema for Gaia DR3

[Summer Student Programs](#);

active, iterative support to more than [LINCC Frameworks Incubators](#) and [Project](#)

home with LSST Discovery Alliance.

- Four new institutional members joined LSST-DA from 3 continents;

Current Member Institutions

Institution	Representative
Adam Mickiewicz University, Astronomical Observatory Institute (IOA)	Agnieszka Kryszczyńska
Adler Planetarium	Michael Zevin
Astronomy Australia Limited (AAL)	Chris Wolf and Stuart Ryder
Astrophysics Institute of the Canary Islands (IAC)	Johan Knapen
Astronomisches Rechen-Institut (ARI), Heidelberg University	Eva Grebel
Carnegie Mellon University	Rachel Mandelbaum
California Polytechnic State University, San Luis Obispo	Louise Edwards
Chicago Area Partners (IIT/CCCs)	Emily Leiner
City University of New York (CUNY)	Saavik Ford
Columbia University	Morgan May

Rutgers University	Eric Gawiser
San Diego State University	Robert Quimby
Schmidt Sciences	Arpita Roy
DOE's SLAC National Accelerator Laboratory	Adam Bolton
Texas A & M University	Krista Lynne Smith
The Institute of Physics of the Academy of the Czech Republic	Michael Prouza
University of Arizona*	Buell Jannuzi
University of California-San Diego	Christopher Theissen
University of Illinois at Urbana-Champaign	Joaquin Vieira
University of Oxford	Aprajita Verma
University of Pittsburgh	Jeffrey Newman
University of Texas, Rio Grande Valley	Ryan Oelkers
University of Toronto, Canada	Renee Hlozek
University of Virginia	Maryam Modjaz

Hobart and William Smith Colleges (HWS)	Leslie Hebb
Istituto Nazionale di AstroFisica (INAF)	Rosaria 'Sara' Bonito
Johns Hopkins University	Alessandra Corsi
Kavli Institute for Particle Astrophysics & Cosmology – Stanford University	Patricia Burchat
Laboratorio Interinstitucional de e-Astronomia (LIneA)	Luiz da Costa
Las Cumbres Observatory Global Telescope Network, Inc.	Lisa Storrie-Lombardi
Max Planck Institute for Astronomy (MPIA), Heidelberg	Coryn Bailer-Jones
Northwestern University	Adam Miller
AURA/NSF's NOIRLab (formerly AURA/NOAO)*	Knut Olsen
Pennsylvania State University	Don Schneider
Princeton University	Michael Strauss
Purdue University	John Peterson
Republic of Chile, Universidad Católica de la Santísima Concepción	Markus Rabus

University of Washington*

Nora Shipp

Villanova University

Becka Phillipson

Yale University

Larry Gladney

- A [global alliance of 3 dozen Rubin LSST-focused postdocs](#), launched at LSST-DA's [November Catalyst Symposium](#).

LSST Discovery Alliance is piloting a new program that brings valuable elements of the [LSST-DA Catalyst Fellowship Program](#) to a broader community of postdoctoral scholars: *the Catalyst Postdoctoral Alliance*.

Like the inaugural cohorts of Catalyst Fellows, the expanded Catalyst Postdoc Alliance community is composed of an international community of early career scholars with the potential to become leaders in the Rubin community, both through their scientific research and their commitment to the constructive and inclusive practice of science with big data.

In its current pilot phase, Catalyst Postdoc Alliance activities will span academic year September 1, 2025 – August 31, 2026.

The current members of the Catalyst Postdoc Alliance are:

Tiffany Nichols	Northeastern University
Charlotte Olsen	New York City College of Technology – CUNY
Aarya Patil	Max Planck Institute, Heidelberg
Frederick Poidevin	University of Instituto de Astrofísica de Canarias (IAC)
Antonio Porras-Valverde	Yale University
Conor Rasnome	University of Arizona
Gabriele Riccio	Osservatorio Astronomico d'Abruzzo – INAF
Paul Rogozenski	Carnegie Mellon University
Tim Sacco	University of Arizona
Rubens Sautter	Laboratorio Interinstitucional de e-Astronomia (LineA)
Huei Sears	Rutgers University
Behzad Tahmasebzadeh	Villanova University

built cohorts

more than
[project](#)

- Dozens of undergraduate and graduate students were trained and built cohorts through the [Data Science Fellowship](#) and [Summer Student Programs](#);
- Professionalized a dozen [Dovetail](#) graduate students to meet the scientific challenges of large astronomy datasets.
- The [Rubin](#) very Alliance.

Launched in 2016, the LSST Discovery Alliance (LSST-DA) Data Science Fellowship Program (DSFP) positions graduate students to meet the scientific challenges of large astronomy datasets.

The DSFP is designed to supplement your graduate education in astronomy by teaching essential skills for dealing with the large data set soon to be produced by the Vera C. Rubin Observatory's LSST.

The DSFP is a two-year training program designed to teach skills required for Vera C. Rubin Observatory Legacy Survey of Space and Time (LSST) science that are not easily addressed by current astrophysics programs. Fellows learn a wide range of essential skills, including the basics of managing and building code, statistics, machine learning, scalable programming, data management, image processing, visualization, and communication. Our program is a supplement to graduate education, intended to teach students in astronomy-related fields (e.g., astrophysics, cosmology, planetary science, etc.) essential skills for dealing with big data.

- Dozens of undergraduate and graduate students were trained and built cohorts through the [Data Science Fellowship](#) and [Summer Student Programs](#);

Today's undergraduates will be writing the first dissertations based on Rubin LSST data. The time is now to engage undergraduates in LSST-related research and connect them to the networks that will increase their likelihood of success.

Program Overview

The LSST Discovery Alliance (LSST-DA) Annual Summer Student program brings an international cadre of students together at a major Rubin LSST collaboration meeting. Historically, this has been at the annual Rubin Project and Community Workshop.

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2023 Summer Student Program

SEPTEMBER 15, 2023

Learn more about the LSST-DA Discovery Alliance 2023 Summer Student Program in Tucson AZ.

- Professional software engineers provided active, iterative support to more than a dozen science teams through [LINCC Frameworks Incubators](#) and [Project Dovetail](#);

The LINCC Frameworks Incubator Program supports teams of researchers to expand early-stage analysis software being developed as a part of LINCC Frameworks using their own scientific investigations. Scroll through this page to learn more about each of the Incubator Projects.

Interested in your own incubator? View the [Call for Proposals](#) for more information on how to apply.

Funded Incubator Projects:

- Supernova Template Fitting for the Age of LSST (Kaylee de Soto)
- Optimizing an LSST Solar System Simulator (Meg Schwamb)
- DeepDISC LSST: photo-z (Grant Merz)
- Integrating Robust Cross-Matching from the LSST: UK into the LINCC Frameworks (Tom Wilson)
- Developing the LePhare photometric redshift code to improve validation, robustness, usability and performance at scale (Raphael Shirley)
- Survey Masks and Ultrafast Correlation Functions for the Astronomical Community (Emilio Donoso)
- photo-D: Estimating Stellar Distances with the LSST's Broad-Band Photometry (Lovro Palaversa)
- Building an Anomaly Detection Recommendation System for Novel Transients in Early LSST Data (Amanda Wasserman)
- Orbit Fitting at LSST Scale (Matt Holman)
- A Scarlet2 framework for characterizing transients and their host galaxies (Charlotte Ward)
- Time-series Feature Generation and Machine Learning Classification of the Vera C. Rubin Observatory alert stream (Argyro Sasli)
- Linking a Physical Model Library to TDAstro and Improving Performance for Scalable Inference (Nikhil Sarin)

Timeline with LSST Discovery Alliance.

Stage-one proposal deadline *	Approximate Incubator Dates
October 15, 2024	February – April, 2025
February 17, 2025	June – August, 2025
June 16, 2025	September – November, 2025
October 15, 2025	February – April, 2026
February 16, 2026	June – August, 2026
June 15, 2026	September – November, 2026

- The [Rubin Undergraduate Network](#) found a home with LSST Discovery Alliance.

The Rubin Undergraduate Network (RUN) is a group of faculty, researchers, postgraduates, and staff members of primarily undergraduate-serving institutions and organizations who strive to involve and support undergraduates in research related to the Rubin Observatory and, in particular, the Legacy Survey of Space and Time (LSST). While our institutions are spread across the United States and around the world, we regularly gather for online meetings and together host presentations at astronomy conferences throughout the year. Anyone who has a particular interest in using Rubin data to facilitate and encourage undergraduate astronomy research is welcomed to join our organization.



www.lsstdiscoveryalliance.org



933 N. Cherry Ave
Tucson, AZ 85719



sent via email to:
rosaria.bonito@inaf.it

August 14, 2024

Rosaria (Sara) Bonito
INAF - Osservatorio Astronomico di Palermo (OAPa)

Ref: 2024 Science Catalyst Small Grants Call for Proposals

Dear Rosaria (Sara) Bonito,

We are excited to inform you that your LSST Discovery Alliance (LSST-DA) proposal to support projects and/or scientific meetings to help position the community for early science with Rubin Observatory's LSST has been approved.

Your proposal titled, "Preparing for Rubin LSST: Exploring the Variability of Infant Stellar Populations Across the Wavelength Spectrum (PREVIEW)" will be funded in the

Tramuto et al. in prep.



933 N. Cherry Avenue, Tucson, AZ 85721

www.lsstcorporation.org

February 28, 2019

sent via email to: rosaria.bonito@inaf.it

Dr. Rosaria (Sara) Bonito
INAF

SUBJECT: 2019 LSST Corporation Grant Award #2019-02 Grantee Information

Dear Dr. Bonito:

I am happy to inform you that the LSST Corporation will fund your proposal **LSST@Europe4 – LSST**



[Home](#) | [Our Programs](#) – [LINCC](#) | [Inclusive Collaboration Initiatives](#) | [Inclusive Collaboration Projects](#)

The below projects were all supported by grant 2020-1916 from the Heising-Simons Foundation.

General Training

Nurturing the future generations of Rubin scientists with effective, culturally responsive mentoring

Awardees: F. Bianco (University of Delaware), Rachel Street, Sara Bonito

Award: \$17,000

Trained at INAF:
Silvia Piranomonte (financial support)
Sara Bonito

Sara (Rosaria) Bonito – INAF – Osservatorio Astronomico di Palermo

Catalyst Fellowship

Our flagship program, funded by the Templeton Foundation, is a unique three- to four-year fellowship designed for post-doctoral, early-career researchers in both astrophysics and social sciences. (Director, J. Sokolowski – LSST-DA)

[READ MORE](#)

Inclusive Collaboration Initiatives

A set of initiatives to foster a diverse Rubin LSST community, including child care support, inclusive collaboration best practices, and expansion partnerships.

[READ MORE](#)

Data Science Fellowship

A two-year training program, based at Northwestern University, that develops diverse astronomy graduate students with the essential skills for science with large, complex datasets. (Director, A. Miller – NWU)

[READ MORE](#)

Science Catalyst Grants

Previously the Enabling Science Grants, these small grants have a big impact by supporting bold ideas, inclusive participation, and interdisciplinarity while engaging students and early-career researchers.

[READ MORE](#)

LINCC Frameworks

This program will develop advances in software infrastructure to analyze the enormous volume and complexity of Rubin LSST data. (Pis A. Connolly – UW, R. Mandelbaum – CML, J. Sokolowski – LSST-DA)

Summer Student Program

A program for students to attend the annual Rubin LSST meeting, present LSST-related research, and receive professional development, cohort building, and networking opportunities. (Director, R. Calkins – TAMU)



OCTOBER 2023

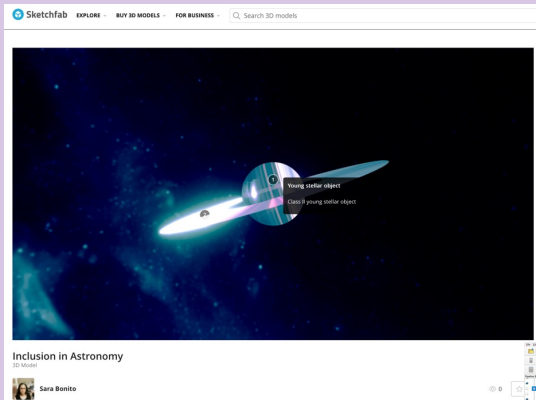
TVS RECEIVED A [LSST DISCOVERY ALLIANCE INCLUSIVE COLLABORATIONS GRANT](#) AND TO DEVELOP A [MENTOR TRAINING PROGRAM](#) - THE PROGRAM WILL BE COORDINATED BY SHAR DANIELS.

Coordinator: Sara Bonito
co-Chair: Vincenzo Petrecca

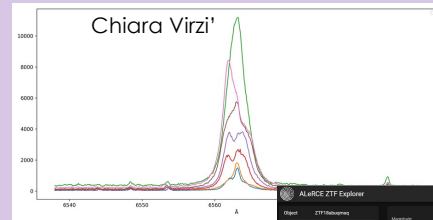
- Integration test of LSST Science Pipeline and Rubin Science Platform
- Build community experience with LSST data products and analysis tools

- internship for undergrad students:

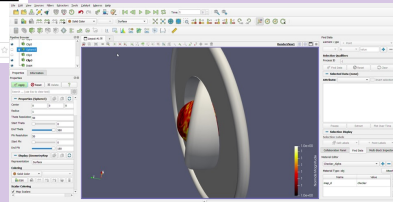
<https://www.youtube.com/watch?v=rowliyNXT5I&t=32s>



Dario Roscioli



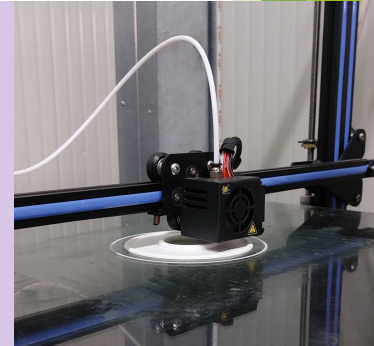
Chiara Virzi



The Portal Aspect of the Rubin Science Platform:
An application to Young Stellar Objects

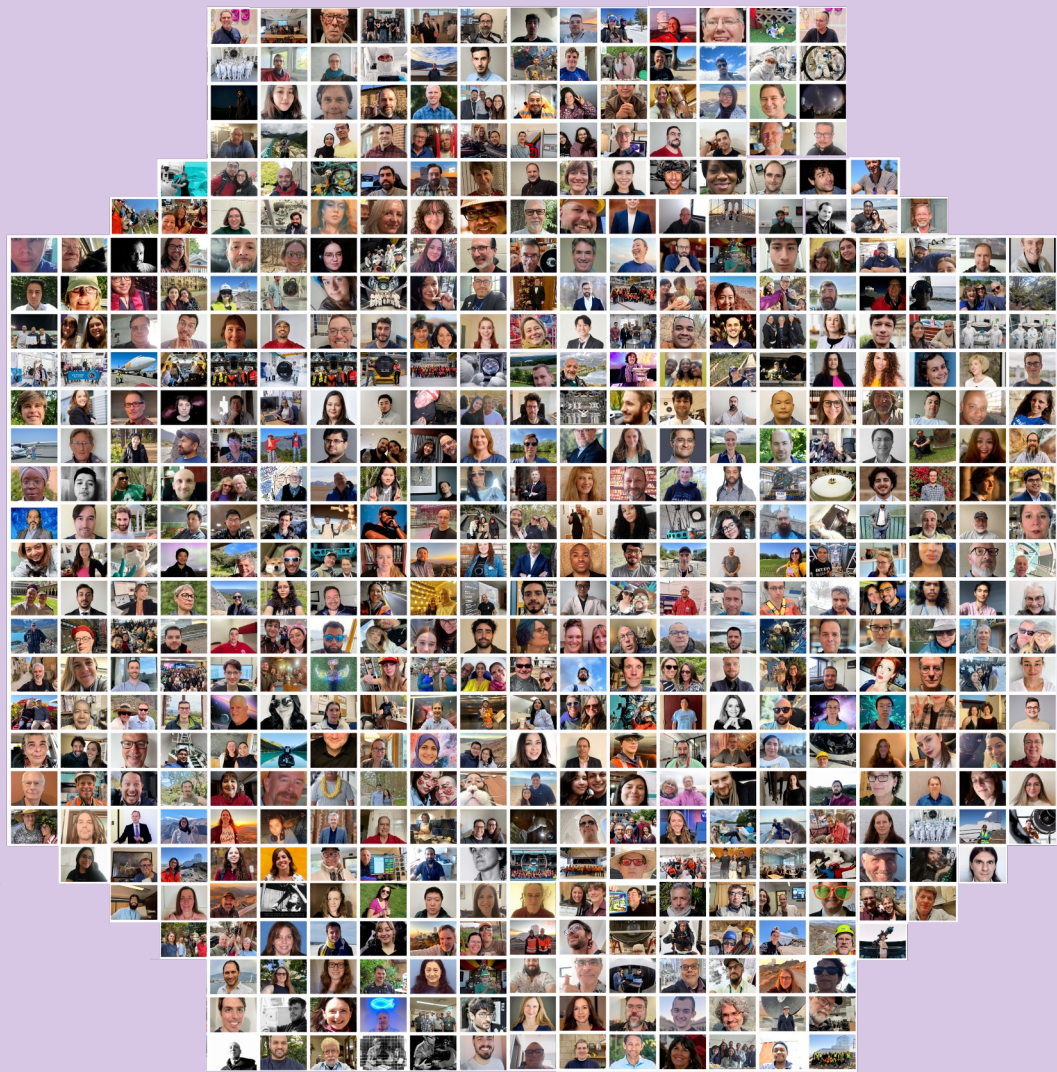
Author: Alessandro Salvatore Tramuto

Undergraduate student (3rd year), studying physics at the Department of Physics and Chemistry at the University of Palermo (UNIPA)



3D print (in collaboration with Ugo Lo Cicero, Sabina Ustamujic and Laura Venuti)

Alessandro Tramuto, Dario Roscioli, Chiara Virzi¹
(internship tutor: Sara Bonito)



New funding opportunity from LSST Discovery Alliance

[Fast Turnaround Science Grants for Early Science with Rubin's LSST](#), generously supported by the Heising-Simons Foundation

This program supports early LSST science by pairing **flexible grant funding** with a unique resource — **professional software engineering support**. Key Information:

- **Grant tiers:** Up to \$12,000 (small), \$50,000 (medium), and \$120,000 (large)
- **Engineering support:** Each project will receive ~20 hours of customized software engineering assistance (awardees are not required to accept it)
- **Award Period of Performance:** mid-2026 to October 15, 2027
- **Eligibility:** Principal Investigators must be based at a U.S. academic institution; co-Is welcomed from any institution.
- **Deadline to apply:** Tuesday, February 17, 2026, 11:59 PM Pacific Time
- **Submission portal:** <https://lsstdiscoveryalliance.submittable.com/submit>
- **Full Call for Proposals:** <https://tinyurl.com/earlylsstscience2026>

COFUND PROPOSAL

Horizon Europe Work Programme for 2026-2027

https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/horizon-europe-work-programmes_en

deadline for submission is April 8

22 postdocs in total in 2 cohorts (INAF: 8)

Increasing the number is possible of course and in fact very welcome

IAC

can once again lead this proposal and project

Should we submit two proposals, a second one for doctoral fellowships
(PhD candidates)?

SPARK

First Look Event

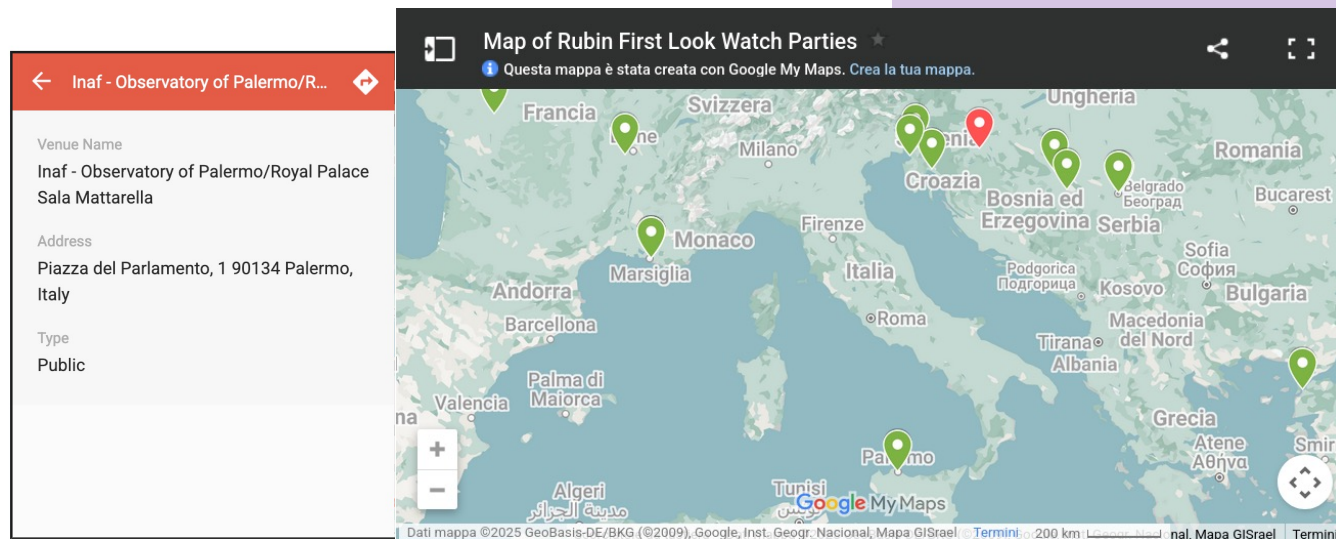
Vera C. Rubin Observatory

Legacy Survey of Space and Time (LSST)

“First Look Event”, Palermo, June 23rd, 2025

INAF Direzione Scientifica grants (PI: Bonito)

Join a Rubin Watch Party near you





CERTIFICATE OF PARTICIPATION

This certifies that the Rubin First Look Watch Party held on 23 June 2025 by

Instituto Nazionale Di Astrofisica (INAF) Observatory of Palermo – Royal Palace Sala Mattarella

is officially recognized by NSF-DOE Vera C. Rubin Observatory.

This certificate is awarded in recognition of the active involvement and valuable contribution to the success of NSF-DOE Vera C. Rubin Observatory First Look event.

Željko Ivezić
Željko Ivezić

Director of Rubin Construction



<https://indico.ict.inaf.it/event/3284/page/1786-rassegna-stampa>

Spazio, le prime spettacolari foto del telescopio Vera Rubin, di Fulvio Viviano, SKY Tg24.

Con gli occhi di Vera Rubin, Radio3 Scienza

Podcast, puntata del 21 giugno 2025, Cosmo 2050, Giornale Radio

GR 1 | GR 1 ore 10:00 del 24/06/2025 | Rai Radio 1 | RaiPlay Sound

Osservatorio Vera Rubin, le prime meravigliose immagini frutto della fotocamera astronomica più grande mai costruita, di Sara Carmignani, WIRED

Osservatorio Vera Rubin, le prime straordinarie immagini, di Agnese Licata, TGR

Le prime immagini del nuovo osservatorio Vera C. Rubin sulle Ande: «Il telescopio coglierà ogni minima variazione dello spazio», di Giovanni Caprara, Corriere della Sera

Il super telescopio Vera Rubin ci darà il più grande film del nostro Universo: "È una rivoluzione", di Matteo Marini, La Repubblica

I primi scatti del Rubin Observatory tracciano la via dell'astronomia del futuro, di Emiliano Ricci, Le Scienze

Rubin Observatory: l'universo si fa cinema. Dalle Ande cilene le prime immagini del cielo in movimento, di Pasqualino Trubia, Gazzetta Sarda

L'osservatorio Vera C. Rubin: una nuova era per l'astronomia dal cielo cileno, di Sara Biasi, SocialMediaLife.it

Il telescopio Vera Rubin inaugura l'astrocinematografia, ANSA Scienza



Ecco le prime immagini dell'Osservatorio Vera Rubin ottenute con la camera digitale più grande mai costruita, di Luca Tortorelli, Geopop

Nuove frontiere dell'astronomia, c'è anche l'Abruzzo, di Marina Moretti, RETE 8

Redazione Coelum

"Mai visto l'Universo così". Il telescopio che apre l'era dell'astrocinema, di Elena Dusi, La Repubblica, 24-06-2025

Dagli Stati Uniti a Palermo: il primo sguardo del Vera Rubin, di Giuseppe Fiasconaro e Davide Coero Borgia, Media Inaf Tv

Oggi a Palermo è stato presentato il primo sguardo dell'Osservatorio Vera Rubin sull'universo, di Anna Cane, TGS

Perché le prime (spettacolari) immagini del super telescopio Vera Rubin sono una svolta, di Leopoldo Benacchio, Il Sole 24 Ore

Il telescopio Vera Rubin negli Usa inaugura l'astrocinematografia, di Enrica Battifoglia, Libertà, 26-06-2025

Se l'universo diventa un cinema. Ecco le prime spettacolari immagini del telescopio Vera Rubin, di Elena Dusi, La Repubblica

Vera C. Rubin Observatory intervista a Rosaria Bonito, di Molisella Lattanzi, Coelum Astronomia, n. 277.