

# Community Engagement Team Virtual Discussion Series 2020

## Rubin Observatory

**Science Collaboration Chairs**  
Wed Nov 18 9am PST

### Open Discussion Sessions

Thu Nov 19 7am PST

Mon Nov 23 9am PST

\*Tue Dec 1 7am PST

Wed Dec 9 12pm PST

Thu Dec 17 4pm PST

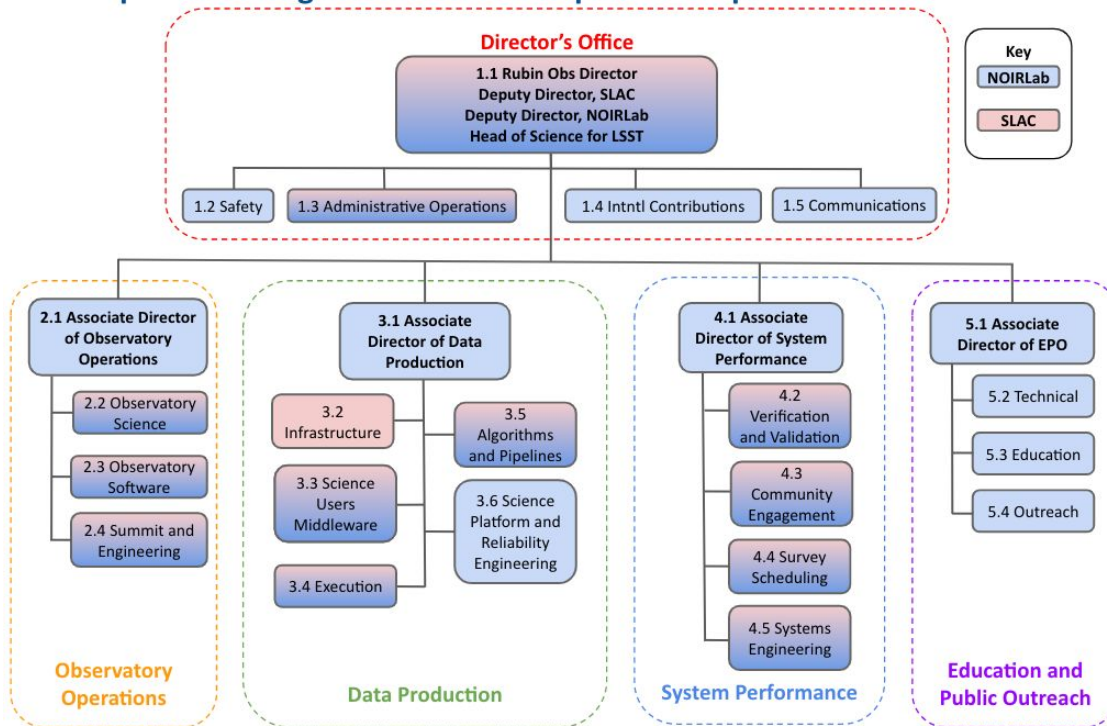
\*bilingual with English-Spanish translator

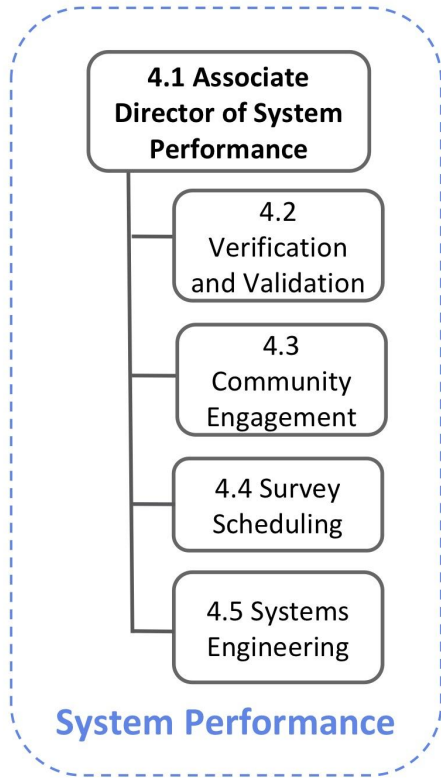


U.S. DEPARTMENT OF  
**ENERGY**

# Operations Organizational Structure (for context)

## Operations Organization: Four Departments plus Director's Office





The System Performance department is an outward-facing and forward-looking department responsible for ensuring that the LSST is proceeding with the efficiency and fidelity needed to achieve its 10-year science requirements. It is built around four teams:

- Verification and Validation
- **Community Engagement**
- Survey Scheduling
- Systems Engineering

Community Engagement is part of System Performance because the scientific results produced by the community are *a key success metric* of the The Rubin Observatory System.

# Who is “The Community”?

“**Rubin community**” is a broad term that refers to anyone, anywhere, interacting with the Rubin Observatory and its data products and services, in any capacity. It is a union set of all of the following communities.

“**LSST science community**” refers specifically to the subset of the “**Rubin community**” doing scientific analyses with the LSST data products and services.

“**Science Collaboration members**” are “**science community**” members who have joined one of the LSST Science Collaborations.

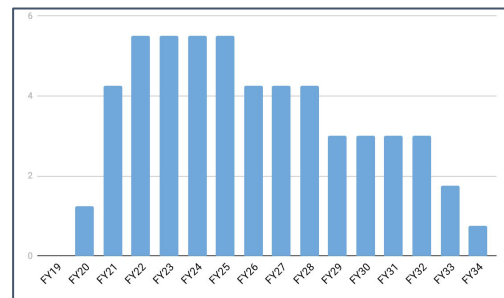
“**Rubin Observatory staff**” are individuals who work for Rubin Observatory, as part of the construction or operations teams. All staff are members of the “**Rubin community**” and are “*data rights holders*”. Any staff engaging in scientific analyses are part of the “**science community**”, many of whom are also “**Science Collaborations members**”.

“**Data rights holders**” are individuals with the right to access, analyze, and publish work on LSST proprietary data (as described in RDO-013\*).

**Maximize scientific results from Rubin by engaging the community.**

## In Operations, the CET will:

- promote inclusive and equitable engagement in LSST science
  - diversity in representation in user committees
  - documentation and tutorials that target all experience levels
- facilitate access to and analysis of data products and services
  - enable the community to crowd-source solutions
  - curate resources (documentation, tutorials, online forums)
  - interact with scientists (workshops, Community.Lsst.org)
- coordinate expertise within the community and the project
  - help to guide issue resolution
  - inform Rubin Science Platform developments
- support diverse research methodology such as citizen science
  - prepare datasets for the EPO Data Centre



*The plan for CET staffing is still in development.*

*At least 7 FTE with a quick ramp-up and a slower ramp-down over 10 years.*

*All staff will be scientists with expertise across the four Rubin science pillars.*

# CET Pre-Operations Staff



Melissa Graham  
University of Washington  
*Time-domain surveys, spectroscopic follow-up, supernovae, simulated photo-z.*



Alex Drlica-Wagner  
Fermilab/UChicago  
*Near-field cosmology, dark matter, dark energy, imaging surveys, detectors*



Grzegorz (Greg) Madejski  
SLAC/Stanford (KIPAC)  
*Active galactic nuclei; cosmology with time delay measurements of lensed quasars; high energy astrophysics*



Jeff Carlin  
AURA/Rubin Observatory  
*Galactic structure, stellar populations, dwarf galaxies, near-field cosmology, stellar kinematics and chemical abundances*



James Annis  
Fermilab  
*Gravitational wave cosmology, cluster cosmology, TNOs, astronomical surveys*



Robert de Peyster  
SLAC/Stanford (TID)  
*Camera instrumentation and operations*



Six CET members drawn from construction-era staff at NSF and DOE labs have begun preparatory and transitional work with fractional assignments.

**The CET's current activities include:**

- developing a model for community engagement
  - use-cases for model-based systems engineering analysis
  - ensure scalable and sustainable practices are adopted
  - planning to engage the community in the Data Previews
- interacting with the Rubin community
  - running this discussion series for community input
  - assisting with the Stack Club and the Project & Community Workshop
  - participating in user support via [Community.lsst.org](https://community.lsst.org)
- preparing documentation and resource materials
  - studying documentation and tutorials from Rubin and other facilities
  - participating in redesign of online materials (forum, website)

For our community engagement model to be scalable and sustainable we need to build a thriving online LSST science community forum with the ability to crowd-source solutions from its deep reservoir of collected expertise.

The screenshot shows the LSST Community forum interface. At the top, there's a search bar and navigation icons. Below that, a disclaimer states: "Any opinions, statements (including statements about LSST and what it will deliver), or recommendations expressed on this forum are those of the author and do not necessarily reflect the views of the LSST Project." A link to "community guidelines" is provided. Navigation tabs include "all categories", "all tags", "Categories", "Latest", "Bookmarks", "Unread (16)", and "My Posts". A "New Topic" button is also visible. The main content is organized into categories with sub-topics and post counts:

- LSST News**: 83 topics, 2 unread. "News and announcements from the LSST Project."
- Science**: 238 topics, 10 unread. "Public discussions about LSST science." Sub-topics include Data Q&A, Statistics Q&A, Survey Strategy, DSEP, Independent Data Access Centers, Photometric Redshifts, Crowded Fields, Milky Way (Open), LSST2018, LSST2017, and LSST2016.
- Science Collaborations**: 69 topics, 1 unread. "Science discussions for members of LSST Science Collaborations." Sub-topics include Milky Way SC, TVS SC, PST Telecons, and AGN SC.
- Support**: 299 topics, 1 unread. "Community support venue for using the LSST software, services and data." Sub-topics include Rubin Science Platform.
- Equity and Justice Initiatives**: 9 topics. "For discussions related to diversity, equity, inclusion, and justice initiatives."
- Data Management**: 939 topics, 1 unread. "Discussions with LSST Data Management developers about LSST Stack development." Sub-topics include DM Notifications, DM Team, DM System Specifications, SquaRE Lounge, Astro Mappings, DM Meetings, DM IN2P3, and DM RED.

On the right side, a "Latest" section shows individual posts with icons, titles, and timestamps. Examples include "Trouble getting in to lsst-lsp-stable.illinois.edu", "Negative peaks in calexp files", "Question about getting the pixels and their values of a HeavyFootprint", "About the Inclusion Discussion Series", "New Category: Commissioning Rubin Observatory", "Projects involving irregularly shaped data", "The obs\_decem nullsr task", and "LSST AGN SC: 8 October 2020 Telecon Minutes".

## Why the Discourse platform?

Discourse was designed to encourage users to “fall into the pit of success: reading”\*

- Native to the web (linking; searchable; markdown).
- Prioritizes user experience (threading; liking; notifications).
- Open platform (publicly viewable, accounts for all).
- Hierarchical categorization (easy to navigate).
- Support for marking solutions as 'answers'.

The CET is reviewing the organizational structure of existing categories, and the use of tags, groups, trust levels, and so on.



**Three ~15 minute topical discussions.**

- 1. [Our Community.lsst.org](#) forum.**
- 2. Issue resolution and support for science.**
- 3. Support for diverse and inclusive research methods.**

## How does Community.lsst.org work for you? What might you change?

The screenshot shows the LSST Community forum interface. At the top, there's a search bar and a user profile icon. Below that, a disclaimer states: "Any opinions, statements (including statements about LSST and what it will deliver), or recommendations expressed on this forum are those of the author and do not necessarily reflect the views of the LSST Project." A link to "community guidelines" is provided. The main navigation bar includes "all categories", "all tags", "Categories", "Latest", "Bookmarks", "Unread (16)", and "My Posts". There's also a "New Topic" button. The forum is organized into several categories, each with a list of topics and their status (unread/read). The categories shown are:

- LSST News** (83 topics, 2 unread): News and announcements from the LSST Project.
- Science** (238 topics, 10 unread): Public discussions about LSST science. Sub-topics include Data Q&A, Statistics Q&A, Survey Strategy, DSFP, Independent Data Access Centers, Photometric Redshifts, Crowded Fields, Milky Way (Open), LSST2018, LSST2017, and LSST2016.
- Science Collaborations** (69 topics, 1 unread): Science discussions for members of LSST Science Collaborations. Sub-topics include Milky Way SC, TVS SC, PST Telecons, and AGN SC.
- Support** (299 topics, 1 unread): Community support venue for using the LSST software, services and data. Sub-topics include Rubin Science Platform.
- Equity and Justice Initiatives** (9 topics): For discussions related to diversity, equity, inclusion, and justice initiatives.
- Data Management** (939 topics, 1 unread): Discussions with LSST Data Management developers about LSST Stack development. Sub-topics include DM Notifications, DM Team, DM System Specifications, Square Lounge, Astro Mappings, DM Meetings, DM IN2P3, and DM RFD.

The "Latest" section shows a list of recent posts with their titles, categories, and timestamps. Examples include:

- "Trouble getting in to lsst-lsp-stable.illinois.edu" (Rubin Science Platform, 14h)
- "Negative peaks in calexp files" (Support, 2d)
- "Question about getting the pixels and their values of a HeavyFootprint" (Support, 3d)
- "About the Inclusion Discussion Series" (Equity and Justice Initiatives, 3d)
- "New Category: Commissioning Rubin Observatory" (Meta commissioning, 3d)
- "Projects involving irregularly shaped data" (Science, 6d)
- "The obs\_decam nullstr task" (Data Management, 9d)
- "LSST AGN SC, 8 October 2020 Telecon Minutes" (AGN SC, 10d)

For our community engagement model to be scalable and sustainable we need to build a thriving forum that provides the ability for users to crowd-source solutions from a deep reservoir of collected expertise.

### Uses of the Community Forum

- passive reading, searching, browsing
- active posting new topics, replies
- news and announcements (e.g., workshops)
- project updates (e.g., software releases)
- Q&A, issue reporting, RSP user support
- collaboration (e.g., Science Collaborations)
- open discussions

## The CET is building a set of Use-Case Scenarios to inform our model. This is a generic Use-Case to illustrate issue resolution.



A **scientific** risk, problem, or opportunity is identified by, or brought to the attention of, the **CET**. Its origin could be external (user community) or internal (project staff).



The **CET** create an internal Jira Issue Ticket assigned to the **CET** member with relevant expertise, adding relevant watchers (e.g., from Data Production). A priority and a deadline are assigned.



The **CET** coordinates expertise from the project and the community, gathering information relevant to the issue, facilitating communications, and guiding the response.



Work proceeds to resolve the issue, with participation from across the Rubin community, as appropriate. Intermediate communications and reprioritizations are facilitated by the **CET**.



After the issue is resolved, the **CET** closes the ticket and updates documentation as required. Major changes to data products or services are circulated to the user community.

**Please share your experiences and past issue resolution scenarios.**  
**Positive and negative experiences are both helpful!**



An issue was identified by you, or brought to your attention.



This issue was formalized in some way.



Expertise was coordinated, people communicated about the issue.



Work proceeded to resolve the issue.



The issue was resolved, changes were made.

Please share experiences of how support for diverse, inclusive, and equitable research methods made a positive impact (or vice versa).

Examples of how we are building DEI into our Community Engagement Model.

What other examples have you encountered which we could learn from?

Recall previous slide describing how, in Operations, the CET will:

- promote **inclusive and equitable engagement** in LSST science
  - **diversity in representation** in committees and teams
  - documentation and tutorials that **target all experience levels**
- facilitate access to and analysis of data products and services
  - empower users to crowd-source solutions (**no need to 'know someone'**)
  - curate **accessible** resources (documentation, tutorials, online forums)
  - **prioritize inclusivity** during interactions (workshops, Community.lsst.org)
- coordinate expertise within the community and the project
  - help to guide issue resolution in a **transparent**, science-driven way
  - **a diverse Users Committee** to inform Rubin Science Platform developments
- support **diverse research methodology** such as citizen science
  - assist scientists to prepare datasets for the EPO Data Centre