

# Rubin Observatory and Facilitated DEI Training

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The Vera C. Rubin Observatory community has made a commitment to equity and inclusivity. We have been active in the Equity, Diversity, and Inclusion (EDI) sphere, offering EDI activities and training as well as forming committees focused on promoting equity in all our spaces. In this article, we describe our experiences organizing facilitated and moderated EDI training opportunities for the Rubin community, including a discussion of advantages and challenges of various approaches. While facilitated EDI activities require financial resources as well as a non-negligible amount of work from internal teams, we believe that their advantages outweigh the costs, and we share lessons learned in the organization of facilitated EDI training.

In addition to the more than 1000 individuals working as Rubin Observatory staff, there are more than 2500 scientists based in more than 30 countries around the world preparing to generate science from the Rubin Legacy Survey of Space and Time (LSST). These scientists are organized within the Rubin LSST Science Collaborations. Hereafter, we will use “Rubin” to refer to this global ecosystem.

While we feel confident saying, unequivocally, that Rubin at large shares the ideals of equity and inclusivity, making these principles a reality requires financial resources, work, and effort. There is little doubt that the vast majority of the Rubin community values and intends to support diversity and practice equity and inclusivity, yet statistics confirm the aspirational nature of these principles in Rubin: the representation of scholars of color remains painfully small, the engagement service roles rest disproportionately on the shoulders of minority scholars, and currently, observatory staff in leadership positions are

predominantly senior white males (McBride 2019). These few examples show that equity remains something we strive for, but cannot say we have achieved. To continue to improve our capacity for putting into practice our shared principles, Rubin regularly provides opportunities for EDI training. Recently, some of these activities have been facilitated by external organizations.

Hiring an organization for facilitated EDI training requires an outlay of resources. The first facilitated EDI training in Rubin was supported by a grant awarded to PI Plazas

Malagón by the LSST Corporation (LSSTC Enabling Science Award #2020-07) to

organize an anti-racism workshop during the Rubin Project & Community Workshop (PCW). The organizers felt the urgency of offering an opportunity for reflection on racism in the social environment that was emerging in the early days of the pandemic, a racial reckoning triggered by disparities enhanced by the pandemic and catalyzed in the US by the murder of George Floyd, with the Black Lives Matter movement gaining ground on raising awareness and outrage about systemic anti-Black racism.

We recruited [The BIPOC Project](#)

for anti-Black racism on-line training<sup>1</sup> during the 2021 PCW. The most recent Rubin-facilitated EDI training was organized by the [Transient and Variable Stars Science Collaboration](#) Justice Equity Diversity and Inclusion team

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**LSST Corporation recently selected a cohort of postdoc fellows for the LSSTC Catalyst Fellowship, and I leveraged what I learned in the workshop as I helped oversee and explain the selection process”**

*–Jeno Sokolowski Director of LSSTC’s LINCC initiative, including directorship of the LSSTC Catalyst Fellowship Funded by the John Templeton Foundation*

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<sup>1</sup>Notably, the EDI landscape had changed worldwide, and, accordingly, demand on organizations had increased and prices have risen. Ultimately, the original grant request based on pre-pandemic prices for typical moderated EDI sessions fell short by nearly one-half of the total cost, and AURA stepped in to supply the additional funds with funds from NSF Cooperative Support Agreement 2211468.

(JEDI) and supported by a “kickstarter grant” (\$7,000; PI Bonito) apportioned from Heising Simons Foundation grant 2021-2975 administered by Las Cumbres Observatory (PI Street). Training was led by [Movement Consulting](#) in empathic communication and community building, topics that were chosen by a community vote among those available in the portfolio of the facilitating organization.

Although there are many demands on funding for science, we felt that investing resources in moderated EDI sessions would provide more value to participants, and more benefit to the organization, than providing these sessions “in-house.” Organizing in-house EDI sessions has significant hidden costs, often absorbed by members of the community volunteering their time and energy. As an example, the 2020 PCW included a multi-day EDI session led by members of the Rubin community. This session, based on input from the American Institute of Physics [TEAM-UP Project](#), included offline preparatory exercises and reading as well as follow-up activities and required months of preparation by a team of three Rubin members. Organizing moderated training also required significant person-power from Rubin: work directed to fundraising, identifying, contacting, and selecting facilitators and to working with the selected organization to tune their training to the complex Rubin community. We estimate 20 person-hours to prepare a compelling proposal and 25 person-hours to finalize the organization, including ~15

person-hours spent interviewing facilitators. However, there are additional advantages in externally facilitated EDI activities.

There is a level of EDI competence, experience, and professionalism in externally facilitated training that cannot be expected to be matched by members of the Rubin community with limited EDI formal training and for whom this work is outside of the scope of their jobs. The activities developed by these teams are based on evidence, tested, and optimized for impact on the targeted community. Just as important, however, is the perception of the audience. While in grassroots EDI training some members of the community are necessarily placing themselves in a leadership position, in externally facilitated training, all members of the audience are on the same footing. Furthermore, the moderators do not know the individuals in the audience and do not carry biases and preconceptions about them: they are not deferential to people in leadership positions nor do they have assumptions on who may hold more progressive or knowledgeable views on EDI; the community as a whole is able to reassess their position with respect to equity; and external facilitators can afford to be provocative, even disruptive, without fear of consequences.

The following are some of the lessons we have learned during this process.

## Participation statistics for two externally facilitated EDI training experiences

Participants	Demand	Seniority	Demographic Breakdown	Hours of facilitated work	Preparatory material	Follow-up	Organization
~65 (all required to participate in both sessions)	Demand slightly exceeded the original session limit. All applicants were allowed to participate after consulting with facilitators.	30% junior 37% mid 33% senior	Pronouns: 59% he-him 39% she-her 2% other ==== Racial or ethnic identity not identified	2x2 hour session, consecutive days	Reading material was prepared and shared with prospective participants by Rubin over the course of months prior to the PCW. Part of this training isolated sections of <i>The Time is Now</i> (APS 2020) and suggested them as reading material. A pamphlet on systemic racism and anti-Black racism in STEM and in academia was also offered by the facilitators closer to the time of the workshop with additional references and reading suggestions.	A community session was organized at the five-month benchmark to discuss the impact of the workshop.	<a href="#">The BIPOC Project</a>
Session 1: 17 Session 2: 35	67 (not required to participate to both sessions) Demand did not exceed the per-session limit.	Information not collected	Identifies with a STEM gender minority 52% no 40% yes 8% maybe / prefer not to answer ==== Identifies with a STEM Race-Ethnic minority 75% no 20% yes 6% maybe / prefer not to answer	2x2 hour session, one month apart. Session 1 “Power Dynamics & Empathic Communication” Session 2 “Collective Principles & Community Building”	Topics were selected by pooling the Rubin Science Collaborations.	Participants were sent an anonymous follow-up survey asking about their impressions from the sessions they attended, how to improve them (as organizers and as participants), and what topics they would want future training to focus on. Outcomes will help us organize future EDI training.	<a href="#">Movement Consulting</a>

## Selection of an Organization

It is critical to engage thoroughly with the organization providing the training. The recruitment and selection process includes interviews to understand what activities can be developed for the available funds and ensure that the constraints on dates and modality of delivery will be respected. The Rubin organizing teams considered a representation of marginalized communities among the facilitators a requirement. For example, it was critical for us to ensure that Black people would be leading the anti-Black racism workshop to speak from an experiential and not exclusively scholarly perspective. Familiarity with the world of STEM is important: STEM has specific EDI issues, including severe historical marginalization with lingering effects on diversity and climate, and STEM people tend to be prone to problem-solving, rather than to abstract reflection, which needs to be taken into account in planning a strategy for engagement. We preferred training organizations that would provide preparatory and follow-up material, particularly in the context of training offered at the PCW where we had an opportunity to emphasize and coordinate preparatory work. Facilitated training sessions have limits to the number of participants which vary significantly from one organization to another. This proved to be an important factor in the selection of an organization. See [table](#).

## Working with the Organizations Providing Training

Once an organization is selected, it is critical to familiarize them with the audience. The Rubin community offers significant complexity. We are a highly international community, while EDI topics intersect with cultural and situational frameworks. Organizations that provide EDI training tend to specialize in working within a specific cultural context.

For example, The BIPOC Project indicated that their focus was going to be unequivocally on anti-Black racism, and particularly on anti-Black racism as it is understood in the US

context. While anti-Black racism is a global problem, it has different nuances in different cultural contexts, and it proved important to prepare the facilitators and the community to understand the topic of the training and the lens through which the organization was approaching it. In the instances in which we failed to do that effectively, we failed to reach members of the audience who complained about the specificity of the topic and lack of applicability to their direct environment.

Movement Consulting is a multicultural organization accustomed to working with international audiences.

However, communicating the profile of the Observatory, with the PI of the grant that financed the

training affiliated with an Italian organization, the physical facility occupying Chilean land, the majority of the employees who participated in the training from the US, and community members participating from a variety of countries in North and South America and Europe required multiple iterations and refinements between the two sessions. An additional complexity of the Rubin community is that it is composed of employees of the Observatory, for whom rules of

engagement can be enforced by contractual obligations and Human Resources, and scientists with volunteer associations with Rubin that are not bound by rules enforceable by consequences on their employment. This should be communicated clearly or facilitators may offer solutions that are not applicable to the community at large.

**This meeting opened my eyes. My thinking on this topic had been focused on the “pipeline” question. The discussion over the past two days showed clearly that there is much more at work.**

*- Patrick McCarthy, director of NSF's NOIRLab*

## Participation of People in Decision-Making Positions

We believe it is critical that the leadership of all Observatory and community teams participates in this training. Their participation is a sign of commitment to EDI. Their decision-making power is necessary to turn learned lessons into actionable plans. However, it is also important to ensure that facilitators control social dynamics and prevent people in prominent and decision-making positions from centering themselves or being centered in the discussion. EDI training should be for everyone, and the space where EDI training happens needs to be exemplary in equity.

The last point we want to make is that our EDI training sessions have been disproportionately populated by people from historically marginalized communities: people of color, gender minorities, and people on all axes of disadvantage have been interested in participating and in increasing equity in our spaces for themselves and the other marginalized groups. While we are not qualified to speculate on the reasons for this, we want to stress some of its consequences. These sessions are intended as an opportunity to learn and organize action for everyone, not an opportunity to learn and reflect for some and a request to teach and share experiences about (in)equity for others. It can be very frustrating for people who regularly experience oppression to have to explain oppressions to the newcomers in EDI. We want to protect our colleagues from the risk of retraumatization and the burden of shepherding those with privilege into a new appreciation of the magnitude and importance of EDI issues. Facilitated training removes some of the burden of the organization and some of the potentially onerous spotlight from people from marginalized groups in our community, but the need to protect marginalized identities from harm within the EDI training is a critically important point that should be discussed with the

facilitators in depth before finalizing a contract for EDI training.

We received powerful testimonies of the impact of the workshops we organized, including from people in key decision-making positions, and we are progressively improving plans to sustain the outcome of activities and we continue to invite the community to meet and discuss how they are implementing what they learned in training. We hope and believe that collectively we are moving towards Equity and Inclusivity, and we do see improvements, however slow, in becoming more diverse.

## References

- American Physical Society (APS). 2020. *TEAM-UP Report: The Time Is Now*. <https://www.aps.org/programs/minorities/webinars/teamup.cfm>
- McBride, A. 2019. *AURA CY 2019 Diversity and Inclusion Report*. <https://www.aura-astronomy.org/wp-content/uploads/2020/07/CY-2019-Diversity-and-Inclusion-Report.pdf>

