The LSST-DA Catalyst Fellowship: A Different Kind of Postdoctoral Fellowship

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What Makes the LSST-DA Catalyst Fellowship Different?

The design of the Catalyst Fellowship is as a prize postdoctoral fellowship that includes community building activities to embed fellows into a supportive community that cares about their successes and their future careers. I have had the honor of being part of the LSST-DA Catalyst Fellowship Steering Committee for four years. The following are the things that I find most unique about the fellowship.

1. Mentoring – more than just one supervisor!

At the core is the unique mentoring arrangement for each fellow. Instead of having one postdoc mentor, each fellow has a mentoring team. Each fellow builds their own team which includes mentors at their institute and those from the LSST community at other institutes. Additionally, they have a mentor from a smaller university and a social scientist as a mentor. The team provides wisdom and experience across different types of universities as well as navigating other disciplines. The social scientists provide additional insights into science culture and astrophysics culture.

2. Community Impact Plan

As part of their application, each fellow had to include a public facing or LSST community facing project in addition to their science project. For example, developing a software tool for LSST data, creating a parental policy wiki searchable by university, or making a science and culture planetarium show featuring LSST data and the Rubin Observatory

3. Longer Fellowship Term of up to 4 years

Catalyst Fellows have three-year terms. Stated in the advertisement "Four-year terms for some fellows whose research plans include working closely with faculty and students at small or historically underserved institutions or helping to develop and test analysis tools for LSST data" https://aas.org/jobregister/ad/fc11ea5d. Research on the postdoc years of astrophysicists and the decadal survey white paper on postdocs has appealed to the community to have longer term fellowships of 3 to 5 years (see "Astro2020 APC White Paper: State of the Profession Consideration"). This allows the postdocs to embed themselves in their work for a few years without the stress of being on the job market. Nonetheless, four of the fellows moved into faculty positions before the end of their fellowships.



Aarya Patil, Chris Carroll, Charlotte Olsen, Aritra Ghosh, Azalee Bostroem, Tim Sacco, Shreya Anand, Carrie Holt, Tiffany Nichols, Xiaolong Li, Somayeh Khakpash



Arrykrishna Mootoovaloo



Tansu Daylan

4. Standard and Targeted Recruitment

The most frequently used way to advertise astrophysics postdoc positions is the American Astronomical Society's (AAS) job register: https://aas.org/jobregister/ad/fc11ea5d. In addition, the ad was posted on the LSST pages and individuals connected to LSST Rubin were encouraged to circulate the ad. For the social science fellowships, the ad was sent to well known social scientists that have been studying astrophysicists, astronomical observatories including LIGO, and other related outer space topics, as well as to the Social Studies of Science job boards (https://www.4sonline.org/sts_news.php). The resulting applicant pool was exceptionally varied by science, community impact projects, nationality, highest degree location and sex.

5. Cohort Building

The Catalyst Fellows have an annual meeting, usually in November, which brings together the fellows, their mentoring teams and other LSST Rubin community members. The focus is on the fellows, their research progress and their community impact projects. The fellows self organized monthly online events including inviting speakers addressing specific topics, as well as checking-in and sharing their individual progress. When participating in other science meetings, efforts are made to bring the attending fellows together for a meal with other present LSST community members.

6. Individual Development Plan

Working with their mentoring team, each fellow created an individual development plan that was meant to serve as a blueprint for tying planned research and activities during their Catalyst Fellowship to their future career plans. The IDP was not a fixed document and could be updated as their plans changed.

My Reflections

I think that the LSST-DA Catalyst Fellowship as a new blueprint for postdoctoral fellowships. Did everything go smoothly? There were a few points of friction that I think were due to the introduction of novel things that are not standard across the astrophysics community. For example, the Individual Development Plans, which are not very common in astrophysics, required much discussion for mentoring teams and fellows to understand their purpose as well as them being aspirational and thus flexible. Likewise, the creation of mentoring teams took time in selecting various mentors and needed clarification around the roles of the mentors. Again, having mentoring teams is not common in astrophysics.

Conclusions

The LSST Discovery Alliance Catalyst Fellowship shares elements with traditional postdoctoral fellowships such as a science research program and a project supervisor/mentor; but includes new elements that foster building a cohort and new elements to strengthen mentoring. Perhaps the most unique is the community impact project that has to be done by each fellow in addition to their science. I think that having the Community Impact Plan attracted more community focused applicants. That four fellows have secured faculty positions reflects the quality of the fellows and perhaps is reflective of their mentoring team.

I would like to connect with scientists in Japan and other parts of Asia that are involved with LSST Rubin. I can be reached at lsst2lsst@gmail.com.

This poster is my personal reflections on the Catalyst Fellowship and do not represent the LSST-DA or the Steering Committee members.

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Rubin Image

