

LSST:UK Newsletter 20 (March 2022)

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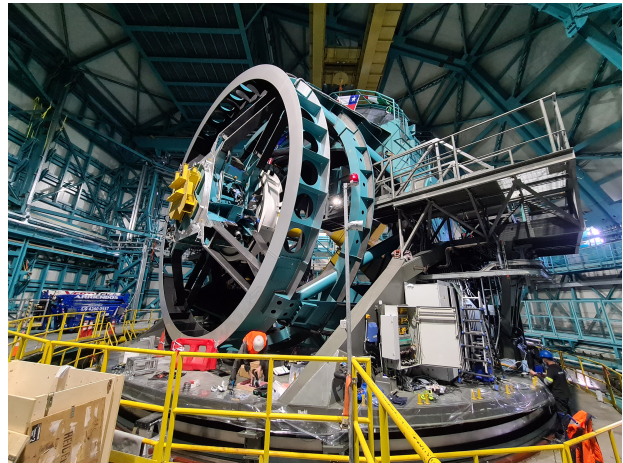


Introduction

Rubin construction on Cerro Pachón continues apace, with staffing numbers on the summit back to pre-pandemic levels, and the telescope taking shape (see right) within the dome.

Construction Project news also includes the appointment of [Fed erica Bianco](#) as Deputy Project Scientist for Rubin Construction; many people will know Fed from the several years that she spent as LSST Science Collaborations Coordinator.

The Observatory has also set up a Users Committee, whose role is well summarised in a [set of slides](#) from its kick-off meeting. Amongst its inaugural sets of members is one from the UK, Qingling Ni (Edinburgh), who is a member of the AGN Science Collaboration and an LSSTC Data Science Fellow. Congratulations to Qingling, who we will invite to write about the Users Committee in a future Newsletter.



(Credit: Rubin Obs/NSF/AURA)

Those with ideas for future newsletter items should contact the LSST:UK Project Managers ([@ George Beckett](#) and [@ Terry Sloan lusc_pm@mlist.is.ed.ac.uk](#)), while everyone is encouraged to subscribe to the [Rubin Observatory Digest](#) for more general news from the US observatory team.

[@ Bob Mann](#)

Participants sought for Data Preview 0.2

The Rubin Community Engagement Team is seeking researchers wanting to participate in Data Preview 0.2, the second stage of the first of the Rubin data previews, which are intended to help people prepare for the arrival of LSST data by giving them early access to, and support in learning how to use, the tools in the Rubin Science Platform (RSP) that they will eventually use for analysis of LSST data.

Data Preview 0 (DP0) provides access, through the RSP, to simulated LSST data produced by DESC as part of its [Data Challenge 2](#). Those who have been involved in DP0 to date have been impressed by the range of [resources](#) made available to the “DP0 delegates” and the collaborative spirit in which the regular “delegate assembly” meetings have operated. In particular, it is striking how the scope of the discussions with the group has extended beyond specifics of LSST data formats and tools, to encompass wider topics (e.g., Python, SQL, machine learning), so it is clear that the Data Preview programme will provide an excellent opportunity for education and training over the next few years, and one in which all LSST:UK Consortium members - particularly Early Career Researchers - are strongly encouraged to participate.

All LSST data rights holders - and, so, [all current LSST:UK Affiliate PIs and Junior Associates](#) - are eligible to apply to become a DP0 delegate via [a webform](#) with a closing date of **30 April 2022**. Those who already have DP0 delegate status from the earlier DP0.1 call do *not* need to re-apply now.

[@ Bob Mann](#)

Executive Group elections

The current terms of three of the five elected members of the LSST:UK Executive Group come to an end in April 2022. We shall launch the formal election process via a dedicated email to the [lusc-announce](#) list in mid-April, but this newsletter item is intended to encourage people to consider putting themselves forward for one of the three vacancies.

Our [governance document](#) notes that “*The principal role of the Executive Group is to fulfil, on a more regular cadence, the role of the Board in providing guidance to the project leadership and ensuring that the project is progressing to the maximal benefit of the UK community*” while it “*also has a quality assurance role in the assessment of project deliverables and consideration of change requests (described in more detail in the [Project Management Plan](#)) and may provide comments (e.g. in the evaluation of pool travel proposals) when administrative tasks within the Consortium require scientific input*”. To that end, the Exec Group meets monthly by videoconference (for ~60 minutes), with occasional email traffic between meetings, with membership offering insight into the workings of the Rubin Observatory and LSST:UK, as well as the chance to help steer the work of the latter.

My email to the *lusc-announce* list in a couple of weeks' time will solicit nominations - including self-nominations - to be sent to me by a deadline in late April, along with a brief statement summarising the nominee's involvement to date in LSST and LSST:UK. In the event that there are more nominees than vacancies those statements will be circulated to the Consortium Board, who will then vote to select who will fill the three free places on the Exec Group.

Those wishing more information about the role of Exec Group member are welcome to contact myself or Bob Mann, and, as with all Consortium positions, we particularly encourage applications from those who would enhance the diversity of the Consortium leadership.

@ Mike Watson

Report from the Rubin-Euclid Derived Data Products Working Group

The Rubin-Euclid Derived Data Products Coordination Group has released its first report on suggestions for sharing derived data products (DDPs) from both telescopes. Derived data products are those that are created from the raw data, such as catalogues, rather than the raw data itself. The essential idea is that these data products will be created by both collaborations for joint use to carry out various science, both cosmological as well as legacy science relating to issues such as galaxy evolution, time-domain astrophysics, and studies of the constituents of our own Galaxy.

This group was established to find ways in which the two telescopes can work together to support each other's mission. As Euclid has higher resolution and Rubin has a nominal deeper depth, there are aspects of both surveys that will be useful for the other. The current result is a report published as arXiv:2201.03862: <https://arxiv.org/abs/2201.03862>

Included in the report are five 'cross-cutting DDPs' which will enable a wide range of complementary science goals, as well as more science-specific DDPs which are more focused on individual science cases. The report includes a description of the science which will be enabled by these DDPs, the resources needed to carry out these DDPs, as well as the time-scales in which they will be useful.

The major recommendation is for allowing catalogues sharing in the overlap between the two surveys. This will allow for a variety of science to be carried out, including modelling of spectral energy distributions, as well as measurement of more accurate photometric redshifts for galaxies seen in both surveys. Another major aspect of the report is sharing imaging data for limited locations of the sky where unique objects are found in either of the surveys. The use of Euclid higher resolution data is also essential for differential chromatic refraction corrections in Rubin. This document will now serve as the basis for future discussions amongst the Euclid and Rubin consortiums and how to set up concrete ways to deliver these DDPs.

@ Prof. Christopher Conselice

Rubin session at the RAS NAM in Warwick - call for contributions

We have been allocated 2 x 90 min slots for a session at the RAS National Astronomy meeting on “Preparing for the Rubin Observatory's Legacy Survey of Space and Time.” This year's meeting will be held at the University of Warwick between the 11th-15th July 2022 <https://nam2022.org>. Our double session is split over the Monday and Tuesday.

In the first of the 90min slots, we will provide overview information for those just starting out with their LSST data engagement as well as more detailed information for those who have been engaged over the last few years. Themes will include: Data Previews, data access, data primers and commissioning; Early science - time domain, the first Data Releases, synergies with other data (focused on science talks from early career researchers); Updates on the LSST:UK contributions to Rubin - how to maximise science and our contribution to the Rubin project.

We welcome and encourage submissions from the community to fill the second of the 90min slots on Tuesday on science and technical topics associated with LSST data and links to other projects. Abstract submission with a deadline of 14th April is here : <https://nam2022.org/science/abstract-submission>

A subgroup from the LSST:UK Exec will form the SOC (S. Smartt, A. Verma, J. Stott, G. Smith, B. Mann) for the meeting and will select the speakers. We very much encourage a diverse range of contributions.

@ Stephen Smartt

Forthcoming meetings of interest

Several meetings of potential interest have been scheduled for the coming months.

Note that the current list of forthcoming meeting is always available on the [Relevant Meetings](#) page. You may also wish to check information held on the LSST organisation website [LSST-organised events](#) and the [LSST Corporation website](#)

- 8-12 August 2022 – **2022 Project and Community Workshop**, [Ritz-Carlton Dove Mountain Resort](#), Tucson. This is primarily an in-person event, though some sessions (plenaries and general-interest sessions) will be virtually accessible for those who cannot attend in person.
- 1–5 August 2022 – the next **DESC Collaboration Meeting** will be held during 1st–5th August at the Kavli Institute for Cosmological Physics at the University of Chicago. More details will be available soon on the DESC Confluence site (login required).

Members of the Consortium (not in receipt of travel funding through one of the Science Centre grants) may apply for travel support for meetings of this kind via the the LSST:UK Pool Travel Fund. Details are available at <https://lsst-uk.atlassian.net/wiki/spaces/HOME/pages/25853997/LSST+UK+Pool+Travel+Fund>.

@ George Beckett

Announcements

If you have significant announcements that are directly relevant to LSST:UK and would like to share the announcement in a future newsletter, please contact the [LSST:UK project managers](#).

The Wide-Field Astronomy Unit at the Institute for Astronomy, University of Edinburgh will soon be advertising two positions related to the UK's LSST Data Access Centre. Both appointments - a **Research Software Engineer** position working full-time on LSST and a **Senior Research Software Engineer** position to be shared 50/50 between LSST and Gaia - will be for two years, in the first instance, with the possibility of extension contingent on future funding, and both will suit applicants with strong Python skills and experience of data-intensive research projects and technical software development. The RSE position will join the DAC team working on the operation and optimisation of data handling systems such as the Rubin Data Butler, the Qserv distributed database, and RSP data interfaces. In LSST, the Senior RSE will develop expertise in using the Rubin Science Platform, guide UK customisations to the platform, and work with science groups to develop and optimise their analysis workflows. The positions will be advertised the [University of Edinburgh jobs site](#) in early April, with a closing date TBC, as the system is currently undergoing an upgrade, but those interested are strongly encouraged to contact Bob Mann or George Beckett informally first.