# LSST:UK Newsletter 22 (May 2022)

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### Introduction

Amongst the most significant recent news from the Rubin Construction project was the announcement that the camera team has successfully attached the cryostat to the camera body in a clean room at SLAC (see picture). This is a major milestone in the construction of the camera, as it sees its three main components - the cryostat, camera body and utility trunk together for the first time.

The LSST Corporation has recently announced that Beth Willman will join LSSTC in September, to take on a new post of Executive Director, which merges the former positions of Chief Executive Officer and Director of Science. In taking up this post, Beth is returning to LSST, as she had previously been Deputy Director, before leaving to become Deputy Director of NOIRLab and Project Director of the US ELT programme. Following Beth' s arrival, Pat Eliason, the current CEO will retire, after many years of sterling service for the LSST community, while the current Director of Science, Jeno Sokoloski, takes over a new position, as Director of LSSTC's Catalyst Fellowship and LINCCrelated programs.





(Credit: SLAC National Accelerator Laboratory)

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

# **Executive Group elections**

Following elections held in May, we welcome two new members - Cosimo Inserra and Kathy Romer - to the Executive Group. Cosimo is an observational astrophysicist working on

extragalactic time-domain astrophysical working on extragalactic time-domain astrophysical working on focuses on the brightest supernovae explosions, usually referred to as "superluminous supernovae", and their use as high-redshift probes. He is also interested in astronomical transients defying the standard paradigm of stellar explosions and on the implementation of machine learning techniques to transient astronomy. Cosimo currently a Senior Lecturer at Cardiff University, holding the Deputy Director of Research and Director of Equality, Diversity and Inclusivity positions.



Originally from Tyneside, Kathy Romer was awarded her BSc in Physics with Astrophysics from the University of Manchester in 1990 and her PhD in Astrophysics from the University of Edinburgh in 1995. She then moved to the USA and was a postdoctoral researcher at Northwestern University and at Carnegie Mellon University (CMU). After a short time as a research professor at CMU, she secured a tenure track position there. She moved back to the UK in 2004 to take up a lectureship at the University of Sussex. She is still at Sussex and is now Professor of Astrophysics and the Director of Student Experience for the School of Mathematical and Physical Sciences. Kathy is a world expert in the discovery and exploitation of X-ray clusters of galaxies. She is principal investigator of the XMM Cluster Survey collaboration and is senior member of the Dark Energy Survey collaboration.



At the same time as welcoming Cosimo and Kathy, we must say goodbye and express our gratitude to Adam Amara and John Stott, who have stepped down from the Exec Group at the end of their three-year terms. Both have participated very actively to the work of the Exec during the past three years.

Amongst Adam's notable contributions were the setting up the successful GatherTown space that hosted the poster session at the 2021 LSST:UK All-Hands Meeting, as well as a providing a virtual venue for some informal mingling during the conference, at which Adam also led a session aimed at introducing LSST and LSST:UK to early career researchers.

John has volunteered for many duties during his time on the Exec. He has provided expert technical reviews of a number of Deliverables produced by the LSST:UK Science Centre (LUSC) team and, notably, served as a member of the important panel that selected the "DEV" Work Packages for inclusion in the LUSC Phase C proposal.

Richard McMahon's term on the Exec also ended in May, but he decided to stand again and was duly appointed for a further three-year term. Richard is the Exec Group's longest member, having served on it since its inception in 2015, and has provided sage advice on a range of topics, based on his long experience of survey astronomy, during that period.

Cosimo, Kathy and Richard are joined on the Exec by two existing members, Catherine Heymans and Aprajita Verma, who both have a further year remaining in their current terms. I' d like to give my personal thanks to all five, as Exec Group membership is a significant time commitment, which is greatly appreciated by the project leadership.





@ Bob Mann

#### NAM sessions

There will be 2 x 90 minute sessions at the RAS National Astronomy meeting at the University of Warwick : https://nam2022.org/science /parallel-sessions on the topic of "Preparing for the Rubin Observatory's Legacy Survey of Space and Time".

The first session will be focused particularly on new and potential users and will be aimed at raising interest in data access to the Rubin's survey data. We will have invited contributions from :

- Federica Bianco, who is now the Deputy Project Scientist for Rubin Construction project. Federica was overall chair off the LSST Science Collaborations, and is co-chair of the Transients and Variable Stars collaboration. She will talk on "Status of the Rubin Project and the Science Collaborations".
- Melissa Graham, who is the Lead Community Scientist for the Community Engagement Team and as a Science Analyst for the Data Management team. She will talk on "The Rubin Science Platform and data access early data previews and releases"
- Bob Mann the LSST:UK Project lead will bring us up to date with the UK's role on the Rubin Observatory
- Roy Williams and Stephen Smartt will present information on what early data will come from the alert stream, and how to access these data products through the UK's Lasair broker.

The second 90min session (chosen by our scientific organising committee, anonymously from the submitted abstracts) will have contributions from :

Aaron Watkins - A novel, nearly model-free sky subtraction method for the LSST pipeline

Agata Roek - Application of NoiseChisel to detecting faint small-body activity with the LSST

Daniel Weatherill - Commissioning and Instrument Signature Reduction of the LSST camera

Garreth Martin - Informing low surface-brightness astronomy with the Rubin Observatory using the next generation of cosmological simulations

Jamie Dumayne - Using 4MOST and the Vera Rubin observatory to measure galaxy properties with smaller uncertainties

Paul Giles - X-rays in the era of LSST

Tom J Wilson - Enabling Early Rubin Science with Robust Cross-Matches in the Crowded LSST Sky

② Stephen Smartt

## Pool Travel Fund



As life begins to return to normal and Covid-19-related travel restrictions are relaxed, we are seeing a return to in-person meetings and events. Given this, it seems a good time to remind everyone that LSST:UK has a Pool Travel Fund to which members of the LSST:UK Consortium (who are not in receipt of a Phase B grant) may apply for support. The fund normally operates in a responsive mode with applications reviewed as they are submitted though, if we expect a meeting to be particular popular (e.g., the PCW), we may issue a time-limited call, to allow us to manage demand. More information about the fund and how to apply is available at LSST:UK Pool Travel Fund.

We also maintain a list of Relevant LSST Meetings, which you may wish to bookmark and check periodically. A topical snapshot of the list is included in each newsletter.

Finally, if you are involved in setting up a meeting or event which you think would be of interest to others in the Consortium, please let me know, so I can add it to the list.

At the time of writing, two calls for Pool Travel Fund support are open:

- DESC Collaboration Meeting 1st–5th August 2022, Kavli Institute of Cosmological Physics, University of Chicago closes on Tuesday 7th June at 4pm BST
- Boom! A workshop on explosive transients with LSST 25th-29th July 2022, University of Illinois Urbana-Champaign closes on Tuesday 7th June at 4pm BST

These two meetings have been scheduled for subsequent weeks and in the Chicago area, to allow people interested in both meetings to attend with as a single long-haul trip. You may apply to attend one or both of these meetings, using a single application to the Pool Travel fund.

In addition, the Project and Community Workshop is being held during 8th–12th August, in Tucson, AZ, and people may wish to travel on from the DESC Collaboration meeting to the PCW. If this is the case, then you may also include that element in your application. Note that a separate call for the PCW meeting alone will be issued at the beginning of June, announced via LUSC-ANNOUNCE and the Relevant Meetings page

## LSSTC Data Science Fellowship Program

The LSST Corporation has is accepting applications - with a deadline of **14 June 2022** - for the next round of participants in its Data Science Fellowship Program. This innovative programme provides the selected fellows with training - through three one-week schools per year over a two-year period - in a range of data science tools and techniques relevant to the analysis of LSST data. Applications are welcomed from graduate students at any stage in their doctoral studies, with the intention that the programme will form an integrated part of their doctoral education.

@ Bob Mann

@ George Beckett

## Forthcoming meetings of interest

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

- 8-12 August 2022 2022 Project and Community Workshop, Ritz-Carlton Dove Mountain Resort, Tucson. This is primarily an inperson 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.
- 25--29 July 2022 Boom! A workshop on explosive transients with LSST is being hosted at University of Urbana-Chapaign, Urbana, in the week preceding the DESC Collaboration Meeting, to allow people to attend both meetings and reduce their overall travel costs.
- 11–15 July 2022 National Astronomy Meeting is being held at Warwick University. In particular, two parallel sessions may be of interest: Preparing for the Rubin Observatory's Legacy Survey of Space and Time organised by LSST:UK; and Discovery in Astronomy and Space Physics enabled by large-scale Digital Research Infrastructures (ASTROCOMP) organised by the IRIS programme.

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.

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.

@ 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.