VERA C. RUBIN OBSERVATORY

Welcome

Bob Blum / Phil Marshall

NSF NOIR Lab AURA SLAC U.S. DEPARTMENT OF ENERGY

Agenda - Monday 7 August Plenary

4:00 - 4:10 pm - Operations Director Welcome (Bob & Phil)

4:10 - 4:55 pm - Construction update

- 4:15 - 4:20 pm - Construction Director welcome (Zeljko)
- 4:20 - 4:40 pm - Construction updates (Victor)
- 4:40 - 4:45 pm - WDA and DEI update (Sandrine)
- 4:45 - 4:55 pm - Q&A

4:55 - 5:05 pm - Introduction Discovery Alliance (Beth)

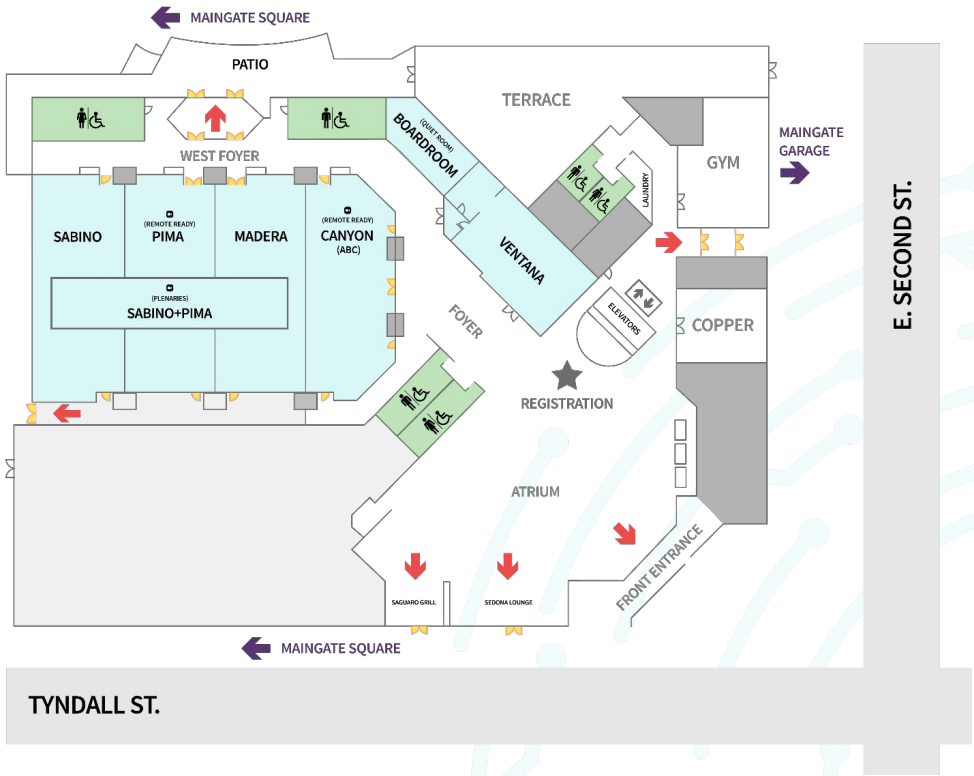
5:05 - 5:15 pm - Student poster pitches

5:15 - 5:30 pm - Logistics for the week ahead (Ranpal & Melissa)

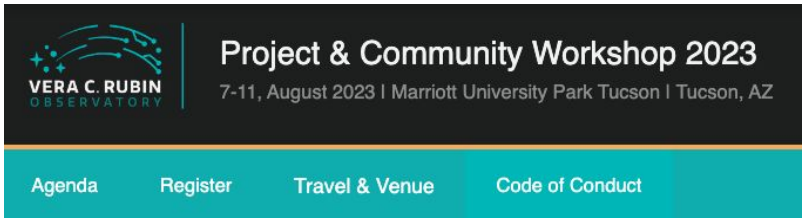
IMPORTANT SAFETY: In case of fire

Follow exit signs

Get familiar with where exits are



Reminder - Code of Conduct



Harassment and unprofessional conduct (including the use of offensive language) of any kind is not permitted at any time and should be reported to:

- Andrew Connolly (ajc@astro.washington.edu),
- John Franklin Crenshaw (jfc20@uw.edu), and/or
- Alysha Shugart (ashugart@lsst.org).

Rubin Observatory adheres to the principles of kindness, trust, respect, diversity, and inclusiveness in order to provide a learning environment that produces rigor and excellence.

full code of conduct

Check name-tags for these contact comfort level stickers.

Wear a mask if you want to!

Use the confidential email rubin2023-covid@lists.lsst.org to request a test, report your test results, or ask questions.

If someone is wearing a pin like this, and it indicates a low social battery, please give them their space or offer to restart the conversation at a later time.

If you feel unsafe at any time send an email to rubin2023-helpline@lists.lsst.org

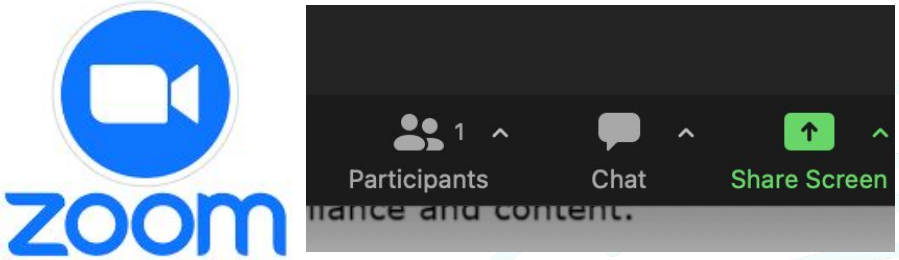
Reminder - Virtual Participation

Virtual participants should be muted when they're not speaking.

In-person participants should speak into the room microphone(s), or the chair should repeat all questions into the microphone, so that the virtual participants can hear what is said.

In the Rubin2023_PCW Slack Space, all participants can use the session's channel for Q&A and discussion.

The channel name convention is, e.g.: #day1-mon-slot3a-intro-to-rubin

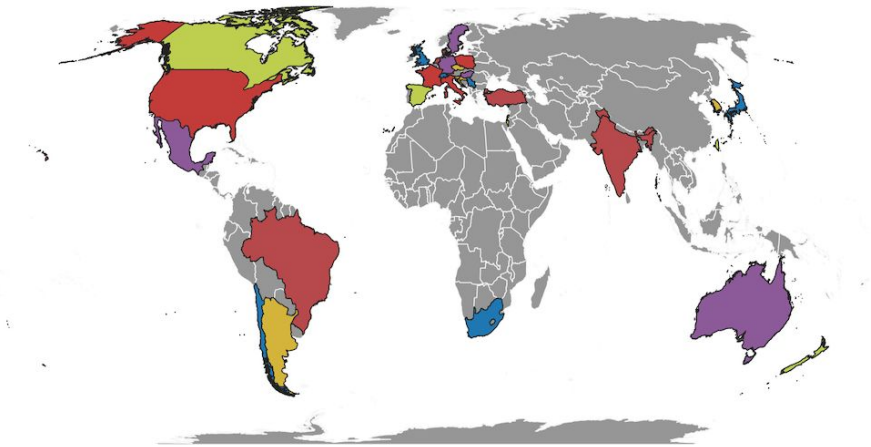


In Zoom, use the chat to:
- request to unmute to ask a question, or
- type your question so someone can speak it aloud.

The Zoom "raise hand" feature is generally harder for moderators to track, and is not preferred, but may be used at the discretion of the session chair.

WELCOME!

13th PCW - Hosted by Operations for the first time



Map from Steve Margheim

~ 300 in-person participants

> 100 virtual participants

Contributions and Science Collaborators on 6 continents

Meeting funded by

- NOIRLab
- Rubin Construction
- SLAC

Thank you!

U.S. DEPARTMENT OF ENERGY | Office of Science

VERA C. RUBIN OBSERVATORY

Construction Status

Ivezić/Krabbendam/Thomas

NSF AURA U.S. DEPARTMENT OF ENERGY SLAC CHARLES AND LISA SIMONYI FUND FOR ARTS AND SCIENCES LSST CORPORATION

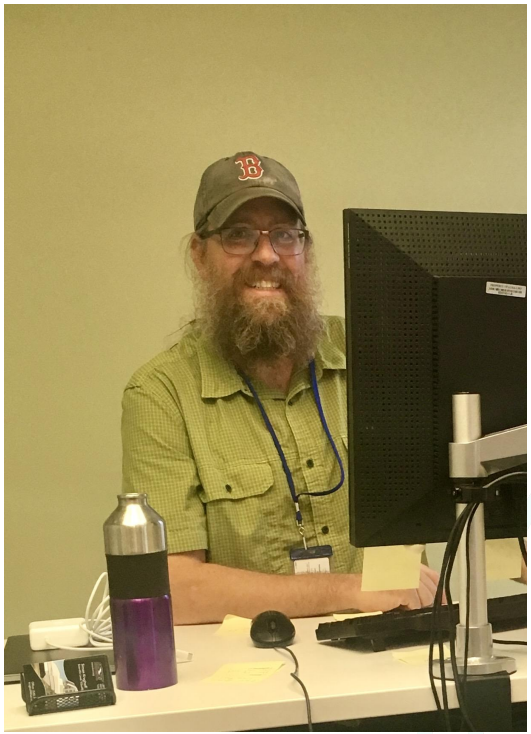
It’s great to see you all! Welcome!

- the construction progress since the last PCW will be summarized by Victor in the next presentation, followed by WDA and DEI updates by Sandrine Thomas

- I will briefly summarize what is ahead for us and when we think we'll be done with the construction project (and transition into full operations phase, and then start LSST)

Remembering Simon Krughoff

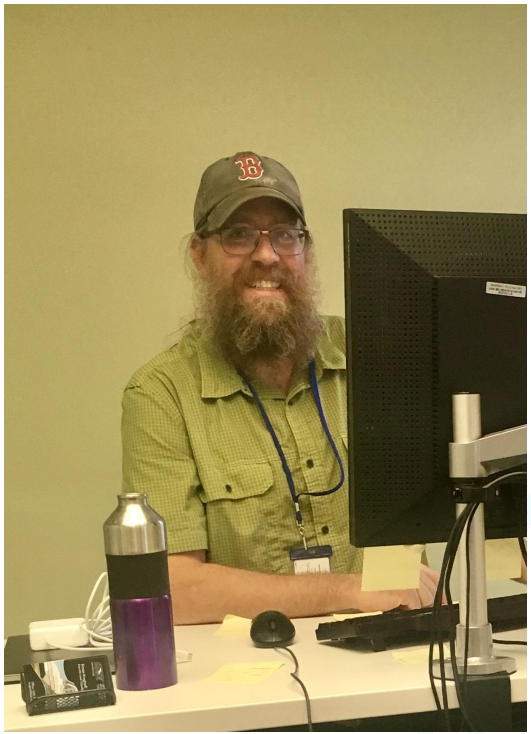
Before I continue, I would like to remind us that we lost our wonderful DM SQuARE team member from Tucson, Simon Krughoff, earlier this year.



Remembering Simon Krughoff

Andy Connolly (Seattle, July 29, ‘23):

“Simon changed my path through my career but more than just that he was a wonderful person to work with; smart, funny, kind, caring. His work changed how we do astronomy today. He was also loved and admired and respected by those he worked with.”



The construction progress to date implies that:

- **" a year from now":**
  Aug '24: "first photon" - **if** we ship the LSSTCam in Nov '23, as currently planned

- **what is "first photon"?** it is the very first image of night sky obtained with the LSSTCam

The construction progress to date implies that:

- **" a year from now":**
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- **what is "first photon"?** it is the very first image of night sky obtained with the LSSTCam

- **what happens after "first photon"?**

- **"formula 9+3+5" for activities after the LSSTCam arrives to the summit:**
  - 9 months to complete integration and get the first photon image
  - 3 month to fine-tune the system and reach "system first light"
  - 5 months for further commissioning, including 2 months for science validation surveys

Not including schedule uncertainty and contingency. See later slides.

Current approximate forecasts:

If LSSTCam ships in November 2023, then:

- **"a year from now":** "first photon", Aug '24
- **"a year and a half from now":** early '25

  DP1 - the first time Rubin data products, from System First Light, become available
- **"two years from now":** mid/late '25: the start of LSST
- **"two and a half years from now":** early '26:

  DP2 - the first time scientifically exciting data products become available
- **"three years from now":** late '26

  Data Release 1 - data products based on the first 6 months of LSST

These project phases/milestones will be discussed in much more detail during many sessions at this meeting.

Current approximate forecasts:

These dates are only current forecasts, with at least “a few months” uncertainties

We need to acknowledge that:

- there is an effect we could call "adiabatic schedule forecast expansion", which appears as we start executing planned activities; so far it’s been at least 10%, and hopefully it will remain under 25-30%
- then there are unpredictable events, we could call them “non-gaussian effects”, or perhaps “departures from (thermo)-dynamical schedule equilibrium”...
  an example is a recent 2-month long stand down at SLAC due to an unpredictable event that insurance companies might call "an act of God"; in other words, it was totally outside our control…

Because of this, our schedule forecasts are still uncertain to at least a few months.

Current approximate forecasts:

These dates are only current forecasts, with at least “a few months” uncertainties

The schedule uncertainties will significantly decrease as we:

- ship the LSSTCam from SLAC to the summit
- acquire “first photon” image
- achieve “system first light”
- execute “science validation surveys”...

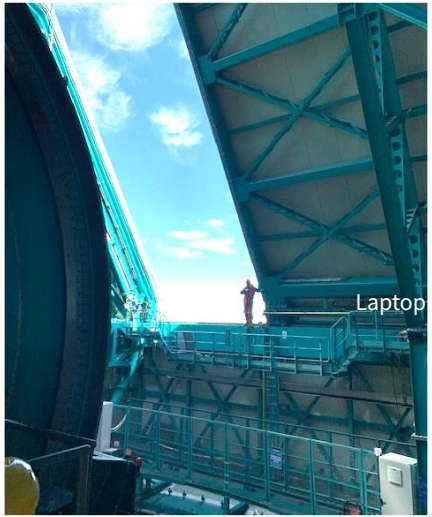
To summarize, we expect:

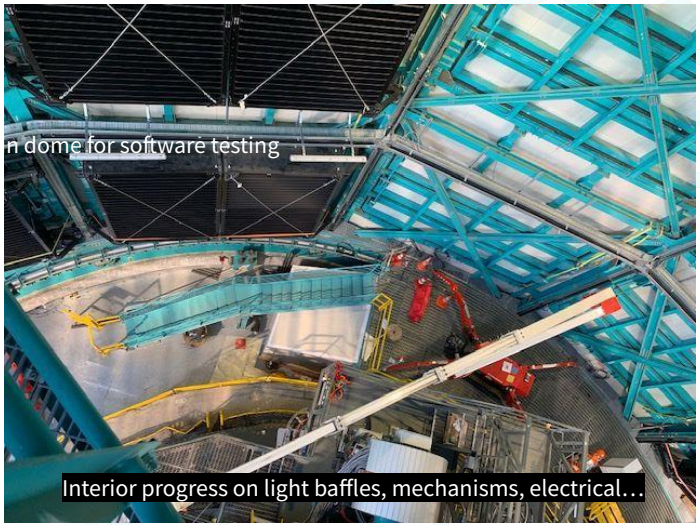
"a year from now": Rubin's "first photon" image

"two years from now": the start of LSST scheduler-driven data taking

"three years from now": LSST Data Release 1

Dome Progress





TMA Moves

TMA substantial Completion!!

It's not done but Vendor released to Rubin with Punchlist.

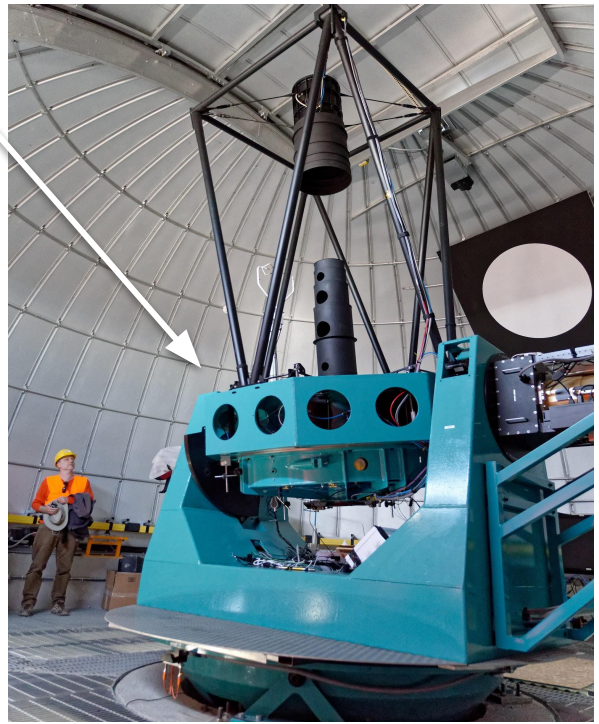
Marks full switch to System Integration

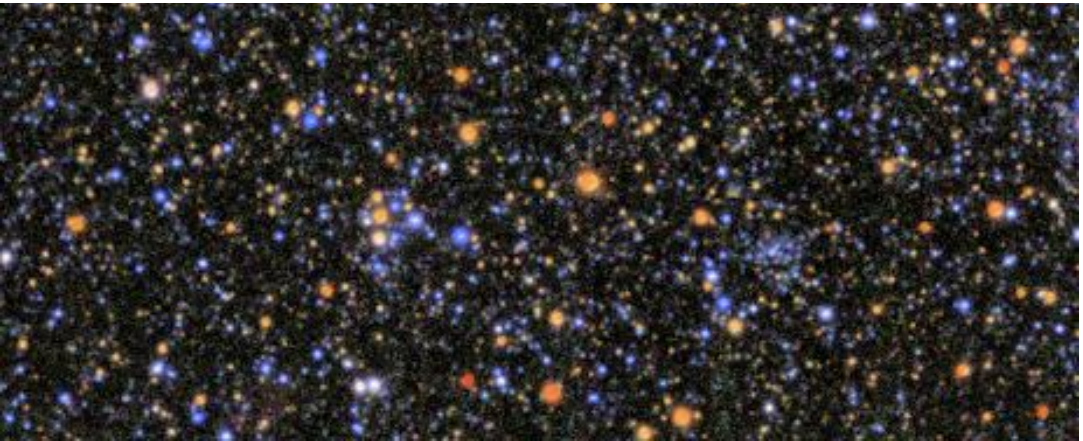
We live, learn, recover and move on

Refrigeration tubing is done! Pressure testing, flushing/cleaning, dry down leading to pathfinder startup.

1100 KVA generator arrived and installation in progress – Electrical shutdown week of 5 June

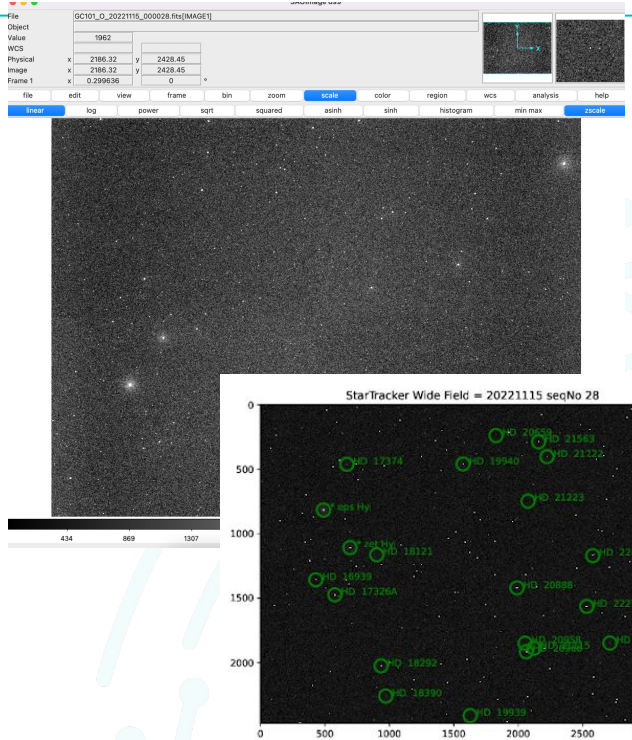
AuxTel is back in operation and key for DM and System Commissioning





6’x5’ gri coadd produced from ~30 overlapping visits with AuxTel in a dense stellar field around the Small Magellanic Cloud
(Lauren MacArthur)

TMA Commissioning and Pointing Tests



Night crew for first image. 4 Rubin staff and 3 in kind contributors (BNL, Duke, UCSC)

SVV team is supporting and planning

CalcRhoStatistics

class lsst.analysis.tools.actions.vector.CalcRhoStatistics(**args*, ***kw*)

Bases: **KeyedDataAction**

Calculate rho statistics

Rho statistics refer to a collection of correlation functions involving PSF ellipticity and size residuals. They quantify the contribution from PSF leakage due to errors in PSF modeling to the weak lensing shear correlation functions.

The exact definitions of rho statistics as defined in [1] are given below.

$$\rho_1(\theta) = \langle \delta e^*_{PSF}(x) \delta e_{PSF}(x+\theta) \rangle$$
$$\rho_2(\theta) = \langle e^*_{PSF}(x) \delta e_{PSF}(x+\theta$$
$$\rho_3(\theta) = \left\langle (e^*_{PSF} \frac{\delta T_{PSF}}{T_{PSF}}(x))(e_{PSF} \frac{\delta T_{PSF}}{T_{PSF}})(x+\theta) \right\rangle$$
$$\rho_4(\theta) = \left\langle \delta e^*_{PSF}(x)(e_{PSF} \frac{\delta T_{PSF}}{T_{PSF}})(x+\theta) \right\rangle$$
$$\rho_5(\theta) = \left\langle e^*_{PSF}(x)(e_{PSF} \frac{\delta T_{PSF}}{T_{PSF}})(x+\theta) \right\rangle$$

In addition to these five, we also compute the auto-correlation function of the fractional size residuals and call it as the $\rho'_3(\theta)$, as referred to in Melchior et al. (2015) [2].

$$\rho'_3(\theta) = \left\langle \frac{\delta T_{PSF}}{T_{PSF}}(x) \frac{\delta T_{PSF}}{T_{PSF}}(x+\theta) \right\rangle$$

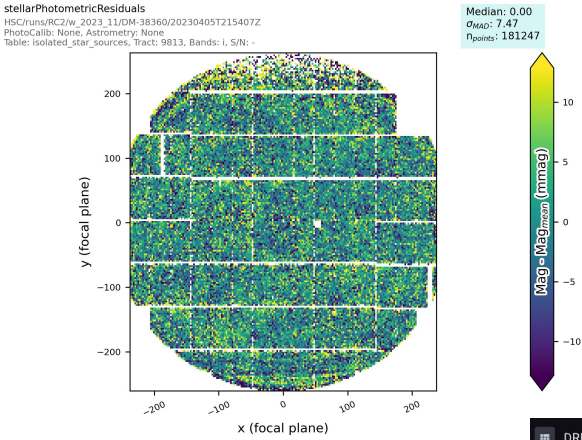
The definition of ellipticity used in [1] correspond to shear-type, which is typically smaller by a factor of 4 than using distortion-type.

References

[1] (1,2)
Jarvis, M., Sheldon, E., Zuntz, J., Kacprzak, T., Bridle, S. L., et. al (2016). The DES Science Verification weak lensing shear catalogues MNRAS, 460, 2245–2281.
https://doi.org/10.1093/mnras/stw990; https://arxiv.org/abs/1507.05603

[2]
Melchior, P., et. al (2015) Mass and galaxy distributions of four massive galaxy clusters from Dark Energy Survey Science Verification data MNRAS, 449, no. 3, pp. 2219–2238.
https://doi:10.1093/mnras/stv398 https://arxiv.org/abs/1405.4285

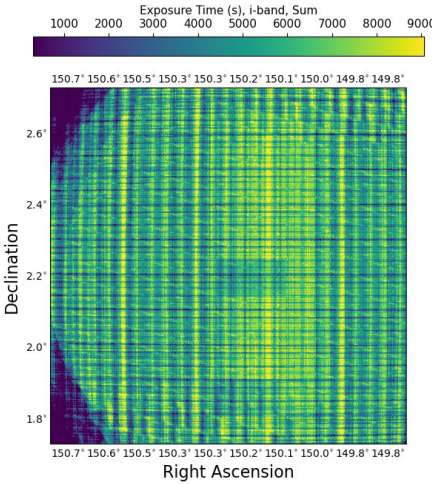
API documentation, conceptual overviews, “how to” guides, and tutorials



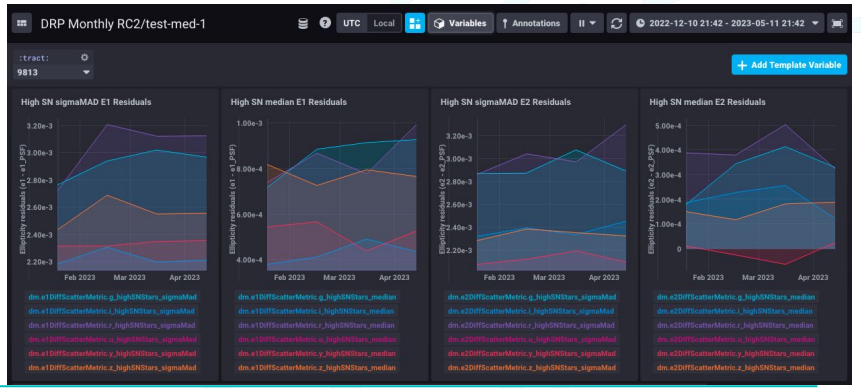
Metric dispatch to Sasquatch to allow time-series monitoring of performance and correlation studies with system telemetry

Ongoing [analysis tools] work to enable more developers to contribute

Visualizing performance in focal plane coordinates



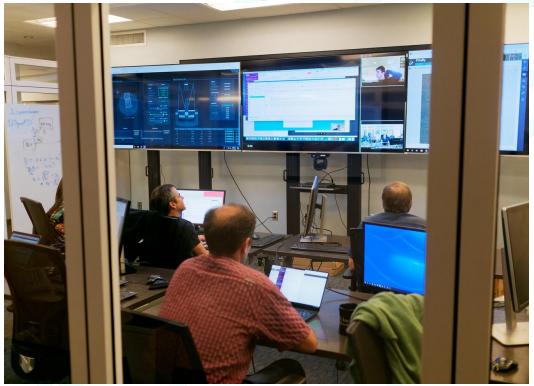
Visualizing survey property maps at a range of spatial scales



Data getting to USDF through DM pipelines and quickviews...





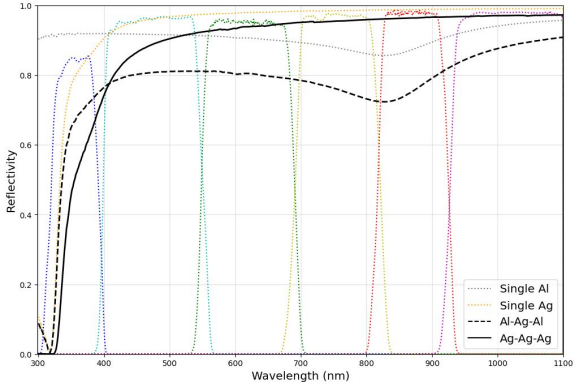

ASC INDUSTRIES
NOTICE
WORKERS UNDER CAMERA STAND WILL WEAR HARD HATS

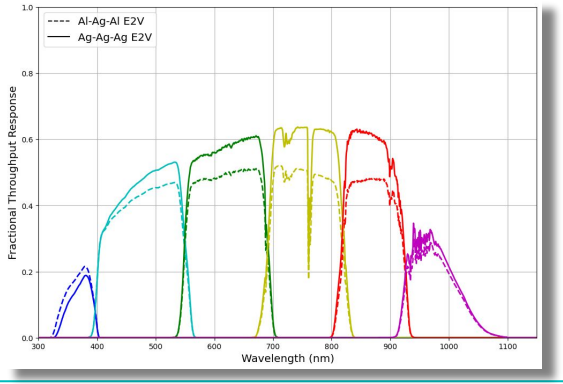
M1M3 and M2 Coating Options: Triple Silver (3Ag) or Aluminum+Silver (Al-Ag-Al)

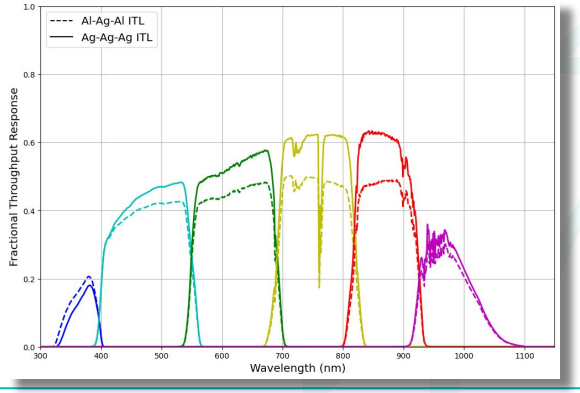
3Ag significantly higher throughput in *g, r, i, z, y*, lower in *u* but still good

System optimization with as-built components, along with positive long-term coating stability studies.

Project is now moving toward baselining 3Ag





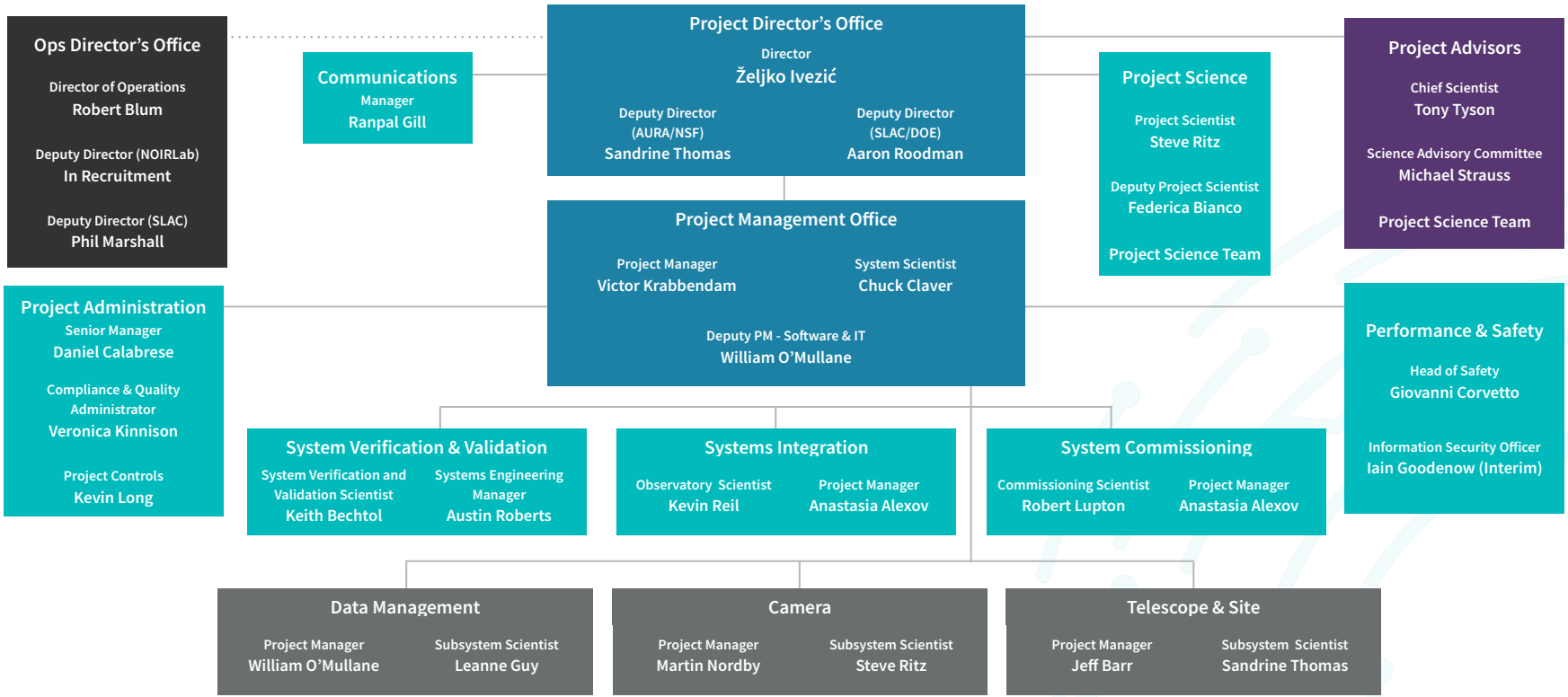


<1% changes in effective wavelengths

Rubin Construction Org Chart

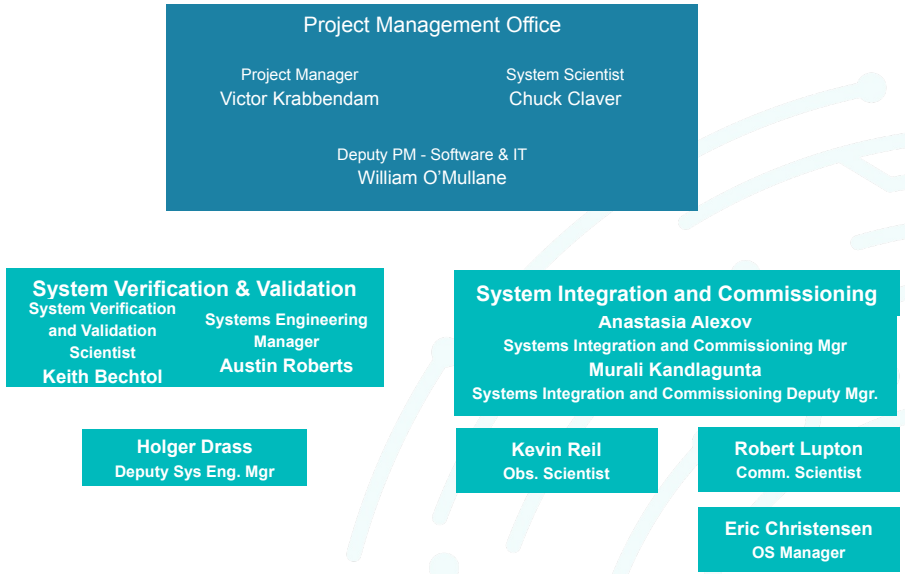
Updated 04/2023

- Project Office
- Advisory
- Project Support
- Sub-systems
- Rubin Operations



PMO / V&V / SIT / Com Updates

- Wil O'Mullane has relocated to Chile
- Anastasia Alexov has relocated to Chile and will manage SIT & Com
- Murali Kandlagunta joined from SLAC to support as Deputy SIT-Com Manager
- Eric Christensen hired as OS Manager
- Holger Drass promoted as Deputy System Engineering Manager
- Not shown is the promotion of Sandra Romero as our Safety lead on the summit.



Construction Summary

- Construction effort is going a bit longer than expected
- We are making progress, safely!
- We will succeed.
- Thank you all for your support, patience, encouragement and enthusiasm.

Other items looking forward:

- Transition to Operations
- Celebrations

Credit: EarthCam, Rubin Obs./AURA/NSF

April 3, 2023. 19:30

Building an Inclusive Rubin Ecosystem

Efforts continues on different fronts

- Workplace Culture Advocates
- Data Previews: reaching out to underserved institutions
- Increase forums to discuss IDEAs issues at various projects-community meetings
- Safety

DEI embedded in Rubin LSST EPO program

- Education investigations designed with low barriers for use & extensively tested with underserved audiences
- Website designed for accessibility & optimized for mobile devices
- Strategic use of social media to reach audiences traditionally excluded from science
- Citizen science infrastructure encourages IDEA initiatives from PIs

Building an Inclusive Rubin Ecosystem

Efforts continues on different fronts

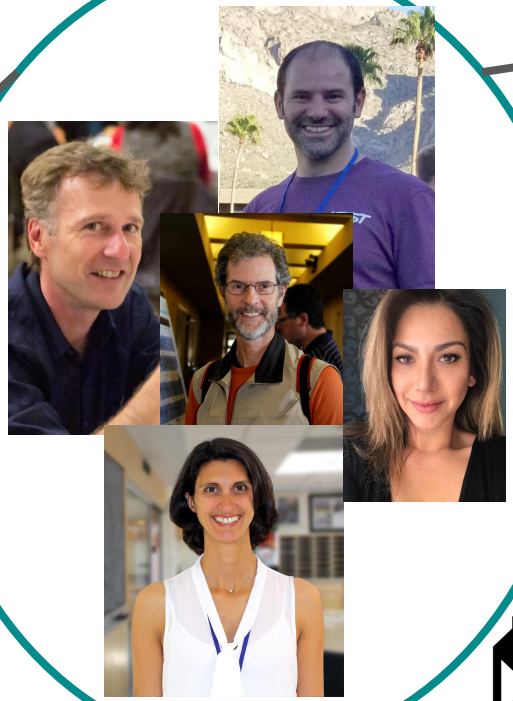
LSST Discovery Alliance

- Funding for Childcare Support to attend the PCW and LSST@Europe5
- Inclusive Collaboration call for proposals
- Expansion Partnership Program

- Science Collaboration DEI Council: Connected to the project and representant in AURA and SLAC institution diversity advocates.
- Science Collaboration Efforts (Clarkson, Bianco and others)
  - SCs DEI councils
  - Reaching Underserved Institutions
  - Multi-SC program “Preparing for Astrophysics with LSST”, PI Rachel Street

How to connect: Workplace Culture Advocate

Safe Ear: we listen to you in case of any workplace issues/conflict



Promote **allyship**

Promote a **kind, welcoming and safe workplace culture**

- ✓Communication
- ✓Diversity
- ✓Stress management
- ✓Recognition
- ✓Make kindness the norm
  - #Be-kind channel
  - https://www.lsst.org/about/kindness

Connection to the directorate when need be

https://project.lsst.org/wca-contact
or to the individual WCAs

https://project.lsst.org/workplace-culture-advocate

How to connect?

List of public slack channels available for discussions

#inclusion

#rubin-be-kind

#rubin-parents

#lgbtqiaplus_and_allies_in_rubin

#neurodiverse

#rubin-scs-dei

#desc-edi

And most likely more… especially private ones.

Watch out for monthly announcement of topical discussions!

Create one and let people know!

Anonymous feedback and suggestions: https://ls.st/rubinideas

SOCIAL BATTERY LAPEL PIN

Available For Purchase Seek Out Alysha Shugart

Alysha will be here throughout the week, and at the following sessions:

Tuesday, August 8, 2023

“Allies across Rubin Support Session”

Madera 11:00 am - 12:30 pm

Wednesday, August 9, 2023

“What’s your beef with the hiring process?”

Madera 11:00 am - 12:30 pm

Friday, August 11, 2023

“Raising Awareness of Neurodiversity in the Rubin/LSST community”

Sabino 9:00 - 10:30 am

$5 USD

Payment Methods

PayPal: wolfchica2001@yahoo.com
CashApp: $AlyshaShugart
Cold Hard Cash

Sessions at PCW

- Monday 11am-12:30pm: LGBTQIA+ social event session
- Tuesday 11am-12:30pm: Allies across Rubin support system
- Tuesday 4pm-5:30pm: Fatigue mitigation program
- Tuesday 4pm-5:30pm: Enter the Rubinverse: Unlocking discovery & building community with citizen science.
- Wednesday 11am - 12:30pm: What's your beef with the hiring process?
- Wednesday 11am - 12:30pm: Supporting Science at small and/or underserved institutions
- Wednesday 2pm-3:30pm: Career pathways for students
- **Wednesday 3:30pm-5pm: Unconference : "Discussion about Rubin values and code of conduct update" and any discussion you might want to have**
- Friday 9am-10:30am: Raising awareness of neurodiversity in the Rubin/LSST Community

Discovery Alliance
Beth Willman

LSST Corporation
is now
LSST Discovery Alliance

LSST
Discovery
Alliance

https://lsstdiscoveryalliance.org/

History

LSST Discovery Alliance

The LSST Corporation (LSSTC) was founded in 2003 as a not-for-profit 501(c)3 Arizona corporation to initiate the Large Synoptic Survey Telescope project and to advance the science of astronomy and physics.

University of Arizona, Research Corporation, University of Washington, and NOAO (now NOIRLab) were the founding organizations.

Today

Our goal is to maximize the impact of Rubin LSST through support from member institutions, grants from foundations, and donations from corporations and private donors. We are committed to changing how science is done, how it's funded, and who's at the table.

What we do - We facilitate resources and funding to help scientists study data of this unprecedented scale and complexity.
How we do it - We develop bold programs and funding opportunities that accelerate transformative breakthroughs in astrophysics through inclusion, scientific networks, and multi-disciplinary collaboration. We collaborate closely with Rubin Observatory and Science Collaborations.

Foundation Support: Schmidt Futures, Brinson, Heising-Simons, Templeton, Research Corp

LSST Discovery Alliance

https://lsstdiscoveryalliance.org/

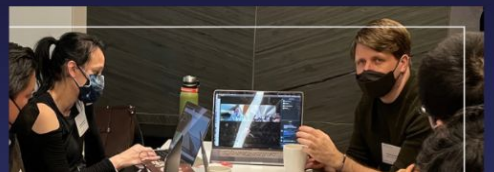
CONTACT US →

Driving transformative discoveries in astrophysics

Credit: CTIO/NOIRLab/DOE/NSF/AURA

A movie of the Universe is about to be made

Once the state-of-the-art Vera C. Rubin Observatory in Chile is completed in 2025, the Legacy Survey of Space and Time (Rubin LSST) will begin. The observatory and camera were designed to produce the widest, deepest, and most complete map of the Universe at incredible speed.



Current Programs

LSST Discovery Alliance

- **Catalyst Fellowship** - This flagship program is a unique three- to four-year fellowship for post-doctoral researchers in both astrophysics *and* social sciences. (Director, J. Sokoloski - LSST-DA)
- **LINCC Frameworks Project** - This ambitious five-year program will develop advances in software infrastructure for the scientific community to help effectively analyze the enormous volume and complexity of Rubin LSST data. (PIs A. Connolly - UW, R. Mandelbaum - CMU, J. Sokoloski - LSST-DA)
- **Data Science Fellowship** - This innovative two-year training program develops diverse cohorts of astronomy students with the essential skills for science with large, complex datasets. (Director, A. Miller - Northwestern)

Current Programs

LSST Discovery Alliance

- **Small Grants Program** - Periodic calls for small grants are designed to provide members with agile and timely support to prepare for Rubin LSST science.
- **Inclusive Collaboration Initiative** - This funded suite of programs incentivize inclusion through childcare support, best practices in inclusive collaboration, and institutional partnerships. **(Connect with Beth if you would like to attend a sponsored focus-group lunch on Thursday to discuss.)**
- **Summer Student Program** - A program for students at member institutions to attend the annual Rubin LSST meeting, present LSST-related research, and receive professional development. (Director, R. Oelkers - TAMU)

Student Lightning Pitches (1/2)

Ryan Oelkers

LSST-DA Summer Student Program Director

19 undergraduates have been supported by the LSST Discovery Alliance to attend the 2023 Rubin Project & Community Workshop.

This morning, they enjoyed tours of the Richard F. Caris Mirror Lab and the NOIRLab machine shop.

Additionally, on Wednesday there is a breakout session dedicated to Career Pathways for students at **2PM in the Sabino room** – all are welcome to attend!

All of the 19 undergraduate students will present posters on their research projects related to Rubin / LSST right after today's plenary session and again after the Tuesday morning plenary.

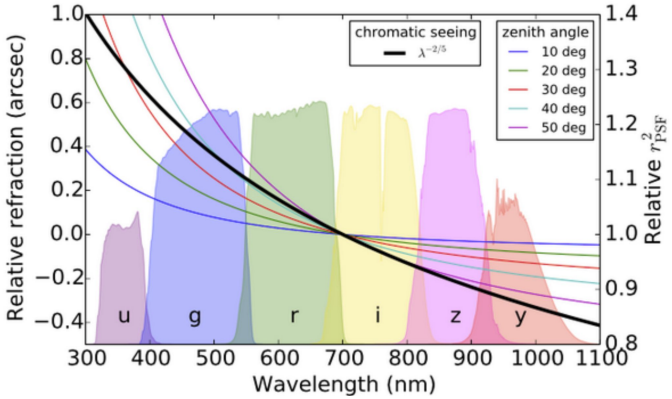
Today we'll hear a ~30-second "pitch" from the first half of the undergraduates and then you will have the opportunity to enjoy their posters and learn more about their research **from ~5:30pm to 6:00pm**!

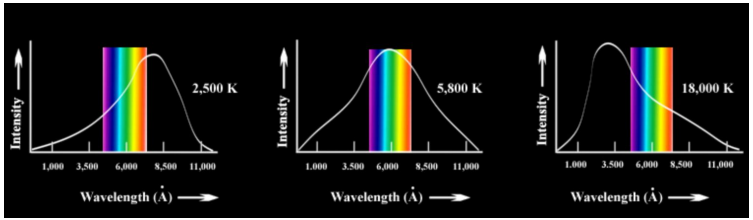
Zoryanna Alvarez | Cal-Bridge - Cal State SB / Stanford

Advisors: Pat Burchat, Sid Mau

Research question: I have been working on chromatic effects on the atmospheric point spread function (PSF) – in particular, measuring how PSF size is correlated with an object's color.

Outcomes: So far, I've looked at PSF size in r-band versus "g - i" color.





Participant in the LSST Discovery Alliance's program for student researchers at the 2023 Rubin PCW.

LSST Discovery Alliance

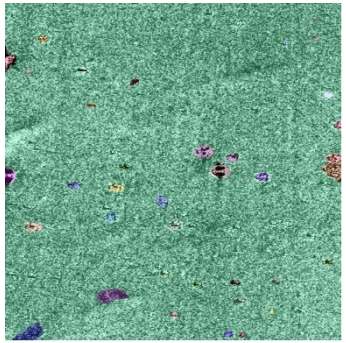
Rodiat Ayinde | Lincoln University

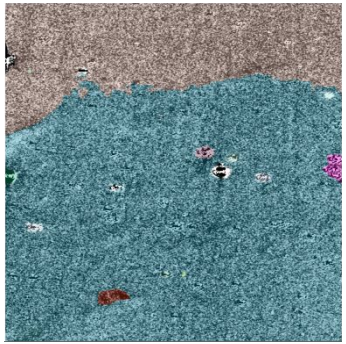
University of Delaware; FASTLab

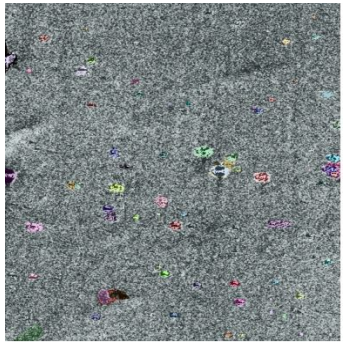
Advisor: Federica Bianco

Research question: Can MetaAI's Segment Anything Model recognize light echoes?

Outcomes: Adjusting hyperparameters for the model did not lead to successful recognition of light echoes. Future work includes transfer learning with the final layers of SAM on a dataset of light echoes.







Participant in the LSST Discovery Alliance's program for student researchers at the 2023 Rubin PCW.

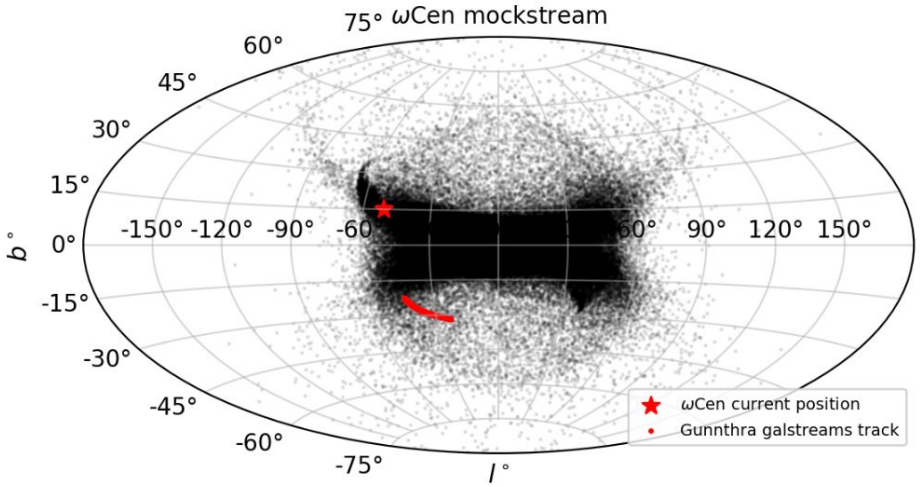
LSST Discovery Alliance

Aiden Cloud (they/them) | Columbia University

Advisor: Kathryn V. Johnston

Research question: Is the stellar stream Gunnthrá part of the tidal debris of the globular cluster ωCen?

Outcomes: Gunnthrá is part of an extended structure of co-moving stars, likely of the same progenitor, and it is plausible that this progenitor is ωCen.



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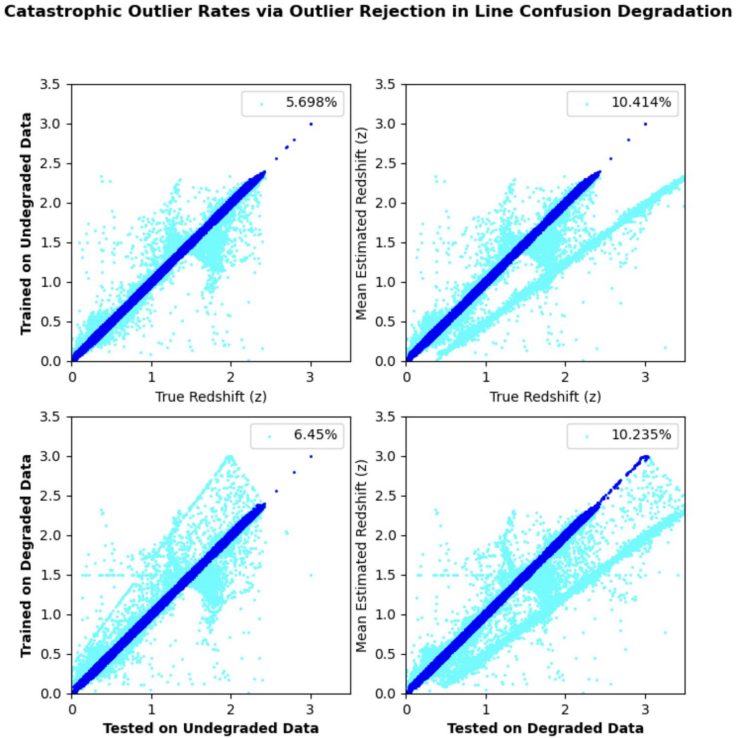
LSST Discovery Alliance

Alice Crafford | Carnegie Mellon University

Advisors: Rachel Mandelbaum and Alex Malz

Research question: How do discrepancies between photo-z training and test sets affect the performance of photo-z estimators?

Preliminary Outcomes: Training set non-representativity and incompleteness, as well as decreased training set size, increase catastrophic outlier rates and worsen other performance metrics, quantified in detail in our RAIL pipeline.



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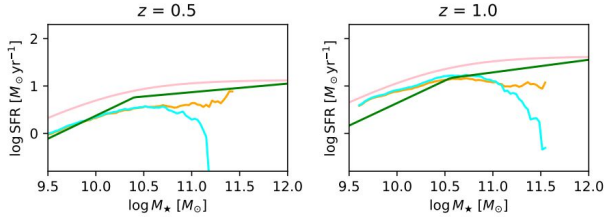
LSST Discovery Alliance

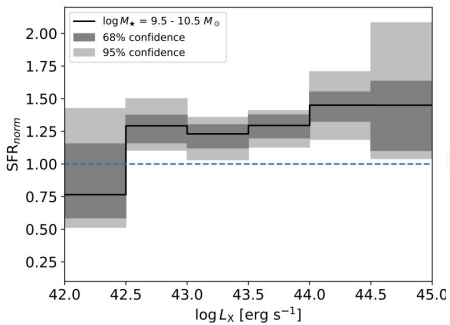
Nathan Cristello | Penn State University

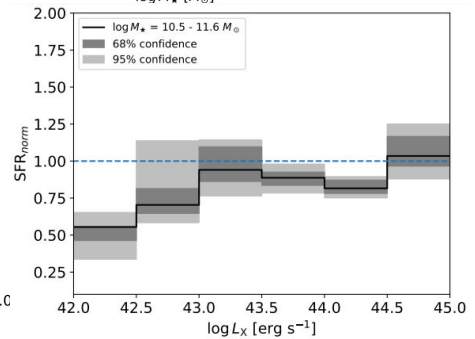
Advisor: Niel Brandt

Research question: Investigating the star formation rates of AGNs in three LSST Deep-Drilling Fields relative to the star-forming main sequence

Outcomes: The position of star-forming AGN host galaxies with respect to the main sequence depends both on L_X and M_*. The more-common, high-M_* AGNs tend to lie on or below the main sequence, while less-massive AGNs generally lie above it.







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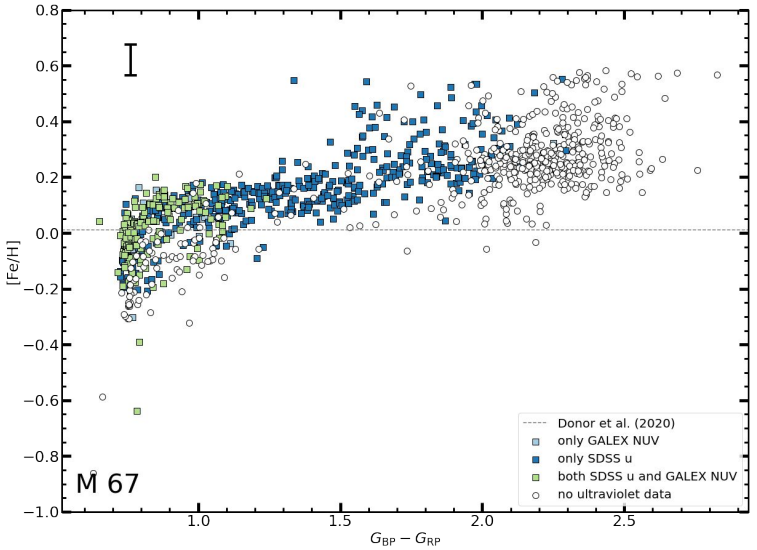
LSST Discovery Alliance

Keyi Ding | Johns Hopkins University

Advisor: Kevin C. Schlaufman

Research question: Accurate and Precise Photospheric Stellar Parameters from Rubin ugriz Photometry

Outcomes: Using main-sequence stars in open clusters, we show that isochrone fits to Gaia parallaxes, multiwavelength photometry, and reddening maps yield photospheric stellar parameters at least as precise as those produced by spectroscopic surveys.



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LSST Discovery Alliance

Andrew Eden | Florida Institute of Technology

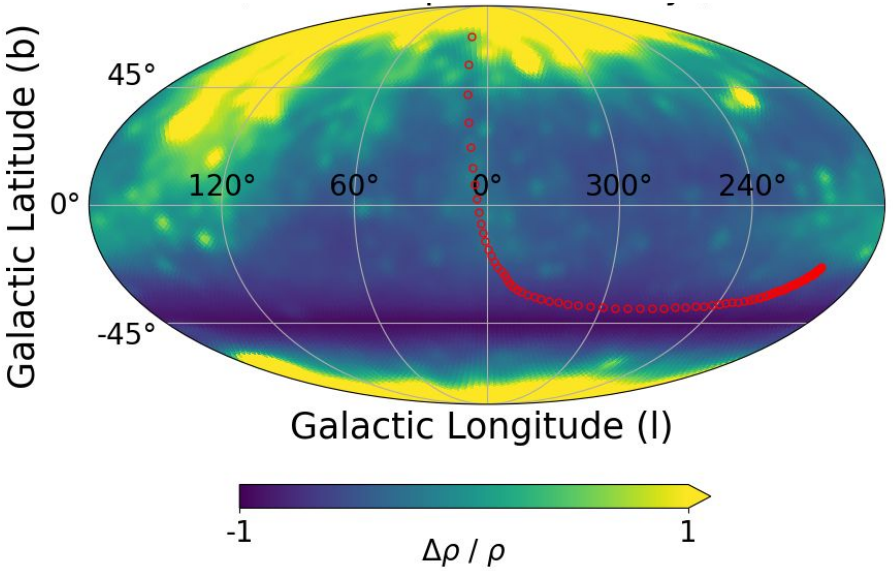
In collaboration with University of Pennsylvania

Advisor: Nico Garavito-Camargo

Research question: What is the density and morphology of the dark matter wake in the Milky Way stellar halo as seen by LSST?

Outcomes: Create mock catalogs of Milky Way stellar halos from simulations to inform us how the Vera Rubin Obs. will characterized the stellar wake induced by the LMC.

All-sky Mollweide projection map of FIRE simulation data with satellite orbit in red.



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LSST Discovery Alliance

Giovanni Gollotti | University of Washington

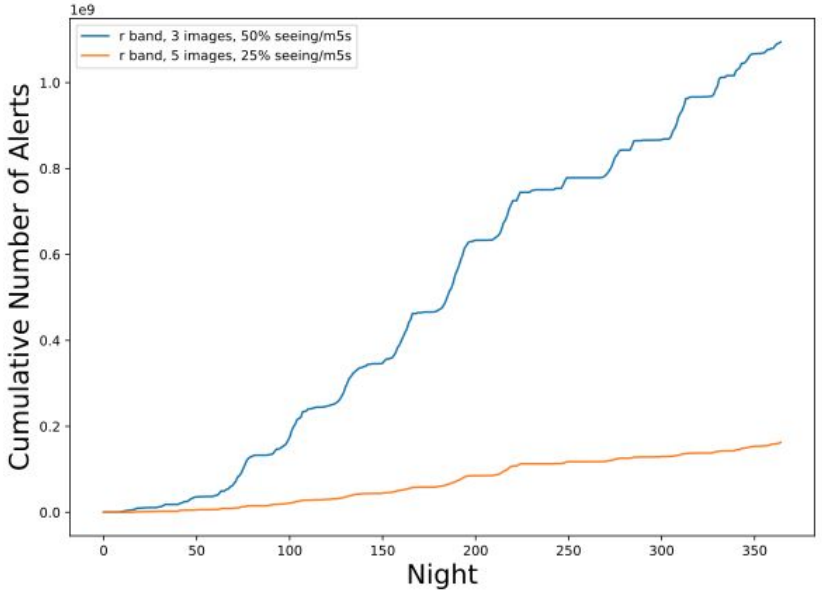
Advisor: Eric Bellm

Research question:

- What strategies are efficient at constructing coadded template images during LSST's first year of operation?
- How will the various strategies affect template generation timing and alert quantity?

Outcomes:

- Early template generation appears to produce the most alerts



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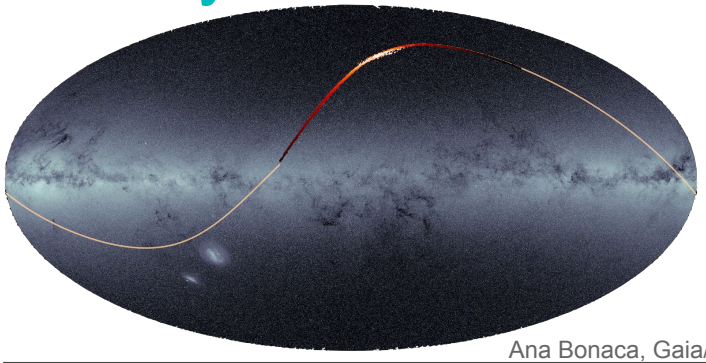
LSST Discovery Alliance

David Gonzalez | Columbia University

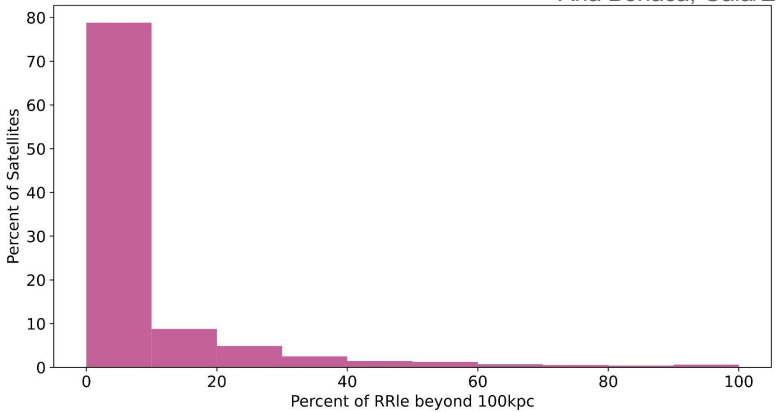
Advisor: Kathryn V. Johnston with StreamTeamTNG

Research question: Is LSST Likely to help detect new stellar streams?

Outcomes: LSST is unlikely to observe completely new streams that haven't been identified yet, but has the potential to help identify newer members of existing streams.



Ana Bonaca, Gaia/ESA



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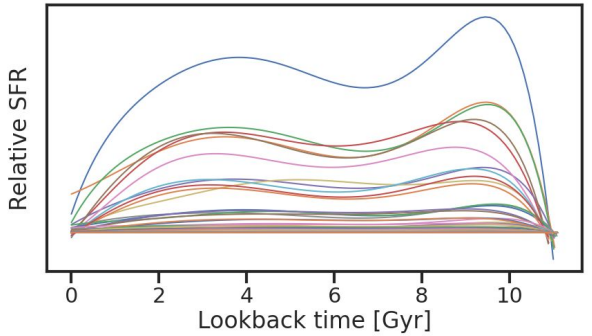
LSST Discovery Alliance

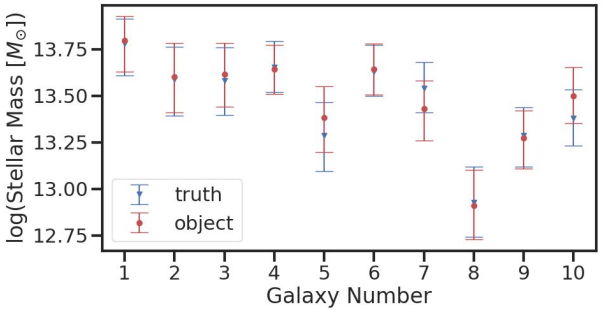
Denvir Higgins | Cal Poly San Luis Obispo

Advisor: Dr. Louise Edwards

Research question: Characterizing star formation history of brightest cluster galaxies (BCGs) through their spectral energy distribution

Outcomes: The fluxes from the truth summary and object catalogs have slightly different posterior distributions in dense_basis; however, both results are within the uncertainty of each data point (here, stellar mass).





Participant in the LSST Discovery Alliance's program for student researchers at the 2023 Rubin PCW.

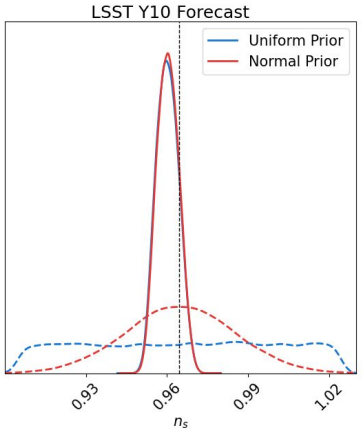
LSST Discovery Alliance

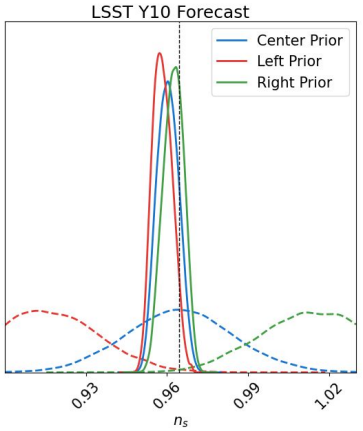
Kevin Hong | UCLA
SULI at SLAC Stanford

Advisor: Agnès Ferté

Research question: How does the prior on the scalar spectral index (n_s) impact weak lensing measurements from LSST Y10? Will LSST Y10 be sensitive to n_s?

Outcomes: MCMC chains with various priors show precise constraints on n_s. No difference can be seen between an informative Gaussian prior vs an uninformative flat prior. Normal priors shifted from the real value also shifts the posterior for n_s.





Participant in the LSST Discovery Alliance's program for student researchers at the 2023 Rubin PCW.

LSST Discovery Alliance

Logistics for the week ahead

Ranpal Gill, Stephanie Deppe, Melissa Graham

Arizona 101!

Stay hydrated

a. It's dry here, avoid dehydration by drinking water throughout the day. Signs of dehydration: thirst, loss of appetite, fatigue or weakness, headaches and dry mouth. Alcohol increases risk of dehydration

Protect your skin

a. Arizona sun can burn unprotected skin after only minutes of exposure.
Apply adequate sunscreen and refresh it after exercising, swimming or sweating.

Let wildlife be

a. Arizona desert is full of wildlife that can be dangerous. Coyotes, javalinas, bobcats, rattlesnakes, deer and cougars are not uncommon. Most will try to avoid humans, but could attack if threatened.

Monsoon safety

a. Now is summer monsoon season, rain can fall in the mountains and cause **flash flooding** in canyons miles away. Be aware of the weather, not just in your immediate area, but in the distance as well. Stay out of narrow canyons and dry washes where flash floods can occur.

b. Monsoon season often brings violent **thunderstorms**, and **lightning** can strike miles from a cloud. Keep an eye on the sky and watch for storms if you're going to be outside. Remember: if you can hear the thunder, you are not too far away to be struck by lightning.

Virtual Access

All plenary sessions are in Pima/Sabino/Madera - accessible remotely

When not in plenary Pima/Sabino/Madera function as 3 separate rooms

Breakout sessions which are remotely accessible are those in:

- Pima
- Canyon ABC

Only logged in AND registered attendees can see Zoom links

General Information

- Tea and coffee available 8am - 5pm Monday - Thursday
- Coffee break - dietary/special items at registration desk
- Gender neutral bathroom - follow signs for fitness center
  - Apologies, Gentle Ben's doesn't have one
- Nursing room - 2nd floor - key card from registration desk

- If you need flip charts, markers etc
- IT needs/requests
- Anything else!

Send a slack message on #pcw-help

Rubin PCW BINGO

- Hosted by Education & Public Outreach
- Pick up a card at the registration desk
- Have fun marking off squares throughout the week
- Bring your completed card to the EPO Open House on Thurs at 4:00pm
- You'll be entered to win a prize!

Introducing Rubin Cosmic Clips: Come talk to EPO about your work!

WHO

You! Yes, you.

WHAT

We're building a collection of videos of people talking about Rubin and its tech/science to use for building excitement over the coming ~18 months across social media and other digital products. **Come answer a few questions on camera for us!**

WHEN & WHERE

Throughout PCW → keep an eye on #pcw-announcements
During and after unconference sessions on Wednesday
At the EPO open house → Thursday @4p in Ventana

QUESTIONS?

Contact Stephanie Deppe on the LSSTC slack, the PCW 2023 slack, or at stephanie.deppe@noirlab.edu

How do you describe Rubin to your friends and family?

How do you explain what you do to your friends and family?

What excites you most about Rubin/LSST?

What big question do you hope Rubin will answer about your field? What will Rubin do that other facilities can't?

What do you think is the coolest part of Rubin?

Daily Poster Session

Monday

@5:30pm - Discovery Alliance supported undergraduate students

Tuesday

@10:30am onwards - Discovery Alliance supported undergraduate students

Wednesday

@10:30am onwards - contributed posters

Thursday

@10:30am onwards - contributed posters

Tuesday

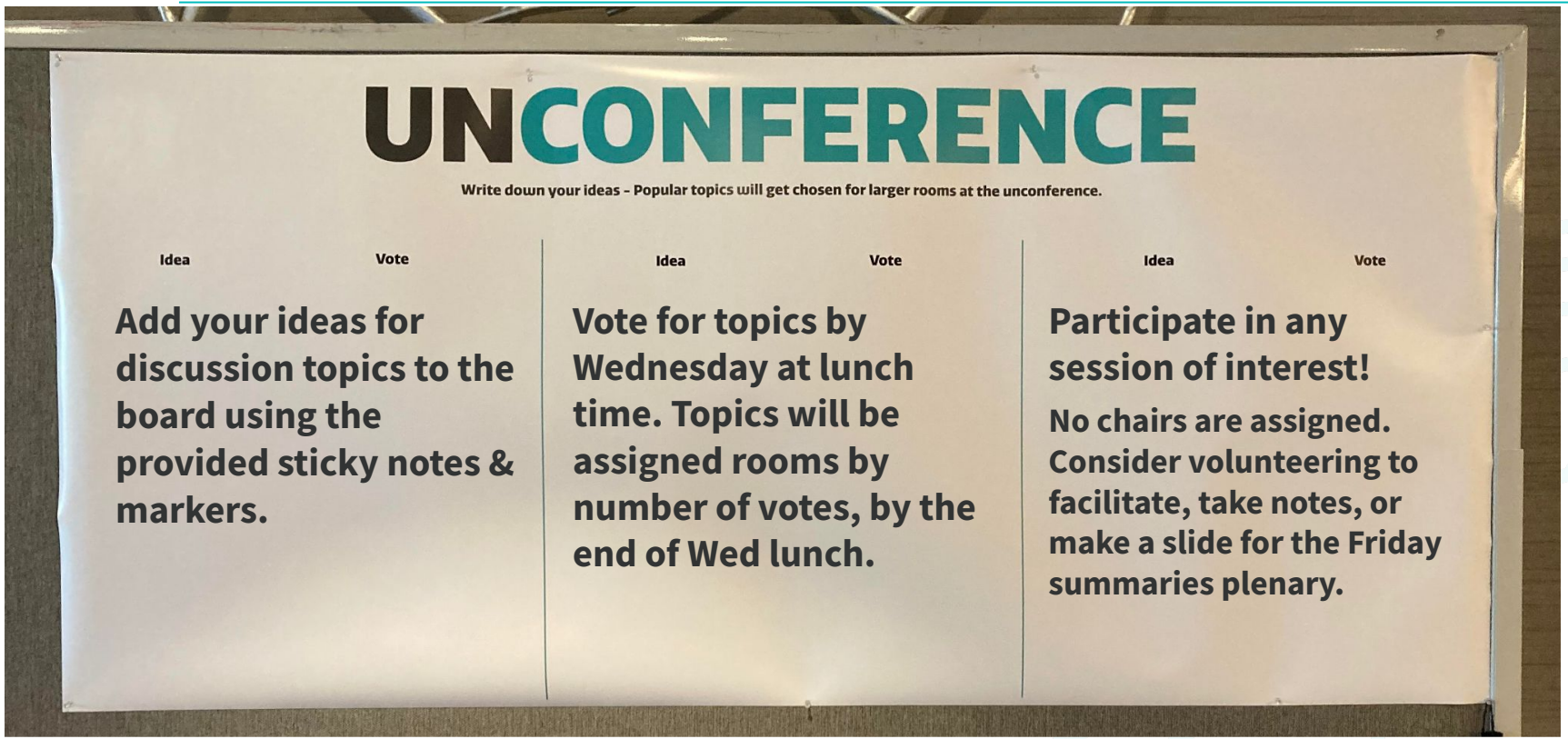
Group photo - 5:30 (before heading to Gentle Ben's

- In-person - hotel atrium
- Virtual - upload https://ls.st/psa
- **Wear your T-shirt!**

Reception at Gentle Ben's - indoor and outdoor space

- Mingle and snack
- Adult beverages at your own cost

Wednesday


UNCONFERENCE
Write down your ideas - Popular topics will get chosen for larger rooms at the unconference.
Idea
Vote
Add your ideas for discussion topics to the board using the provided sticky notes & markers.
Idea
Vote
Vote for topics by Wednesday at lunch time. Topics will be assigned rooms by number of votes, by the end of Wed lunch.
Idea
Vote
Participate in any session of interest!
No chairs are assigned. Consider volunteering to facilitate, take notes, or make a slide for the Friday summaries plenary.

Thursday - Keynote speakers

An Introduction to the LSST Camera: Status & Performance

Aaron Roodman, Camera Program Lead, Rubin Construction Deputy Director, DESC

In this talk I'll review the basic design of the LSST Camera, the largest digital camera ever built, with particular attention to some of its unique features and how they enable the LSST survey. The Camera's assembly is now complete and it is undergoing a final round of testing at SLAC prior to shipment to Chile later this fall. Recent and current work on the Camera will be described and I'll summarize results from the laboratory electro-optical testing program.

Supporting Scientific Excellence & Those Who Animate It

Dara Norman, NOIRLab's CSDC Deputy Director

The Astro2020 Decadal Survey report, 'Pathways to Discovery in Astronomy and Astrophysics for the 2020s', was groundbreaking in its attention to addressing concerns of data access and the astro workforce in support of scientific excellence.

In this talk, I will discuss how many in the Rubin ecosystem and leadership are addressing these Decadal Survey recommendations. I will also highlight resources being developed to further promote best practices in collaborative research.

Chair & Presenter Responsibilities

Reminder that session chairs and their speakers should:

- Session agendas should already be posted to the session pages.
- Upload slides to the session webpage in advance.
- Remote-ready rooms – use the computer already hooked up to projector & Zoom.
  - Remote-ready rooms are Pima and Canyon ABC.
  - Ensure connection is working for virtual participants and monitor Zoom chat.
- Other rooms – bring your own laptop and video dongle, test in advance.
- Keep speakers to time (5 min / 1 min warnings).
- Slack chat – monitor the session's channel for questions for the speakers.
- Ask for help in the rubin2023pcw Slack space **#help** channel.
- Take notes and fill in the slide for your session for the Friday plenary.
  - Edit link to Friday slide deck: **ls.st/zt4**.

Patches & Shirts

Funded by Rubin Construction

Funded by SLAC

Travel and Transportation - Erin Carlson

Desk Availability this Week

Monday: after lunch - 4pm

Wednesday: after lunch - 4pm

Thursday: 8am - 4pm

Slack: #ecarlson

Whatsapp & Text: +1 520 490 9831

Organizing Committee


Emily Acosta


Franz Bauer

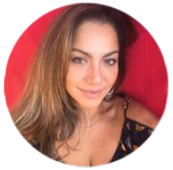

Federica Bianco


Bob Blum


Pat Burchat


Erin Carlson


Glenaver Charles-Emmerson


Carol Chirino


Yumi Choi


Will Clarkson


Joseph Cockrum


John Franklin Crenshaw


Rachael Fosen Cutri


Stephanie Deppe


Ranpal Gill


Iain Goodenow


Linden Hickey


Melissa Graham


Queenie Huang


Veronica Kinnison


Amanda Kocz


Victor Krabbendam


Regina Matter


Sophie McCormick


Rob McKercher


Kristen Metzger


Cathy Petry


Lubi Rasmussen


David Rathfelder


Alysha Shugart


Christine Soldahl


Cheri Winfield

Enjoy the week!

Rubin Research Bytes (RRB)

This year the RRBs are *virtual and asynchronous* contributions about your Rubin-related work or research, posted in the Rubin Community Forum.

no deadline

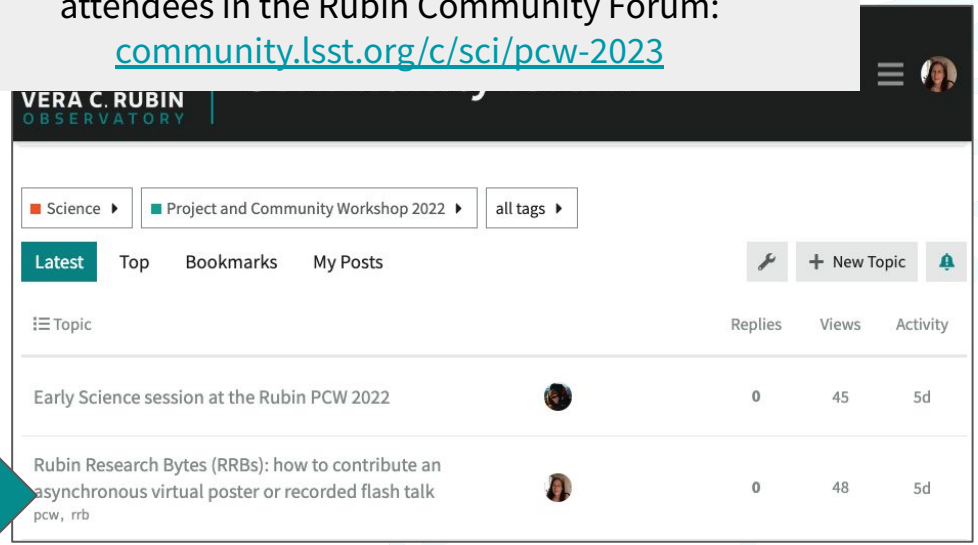
no live virtual session

anyone may contribute

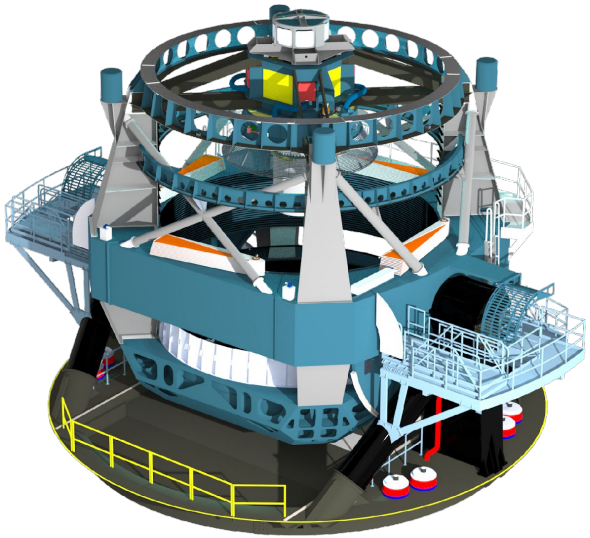
all may view the RRBs at any time

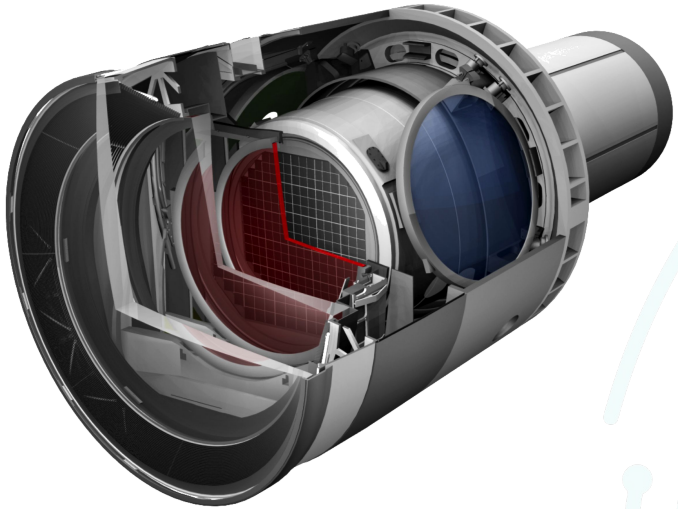
Contributions could be a pre-recorded flash talk, a poster PDF, a slide deck, or a blog-post style Topic posted in the Community Form. Up to you!

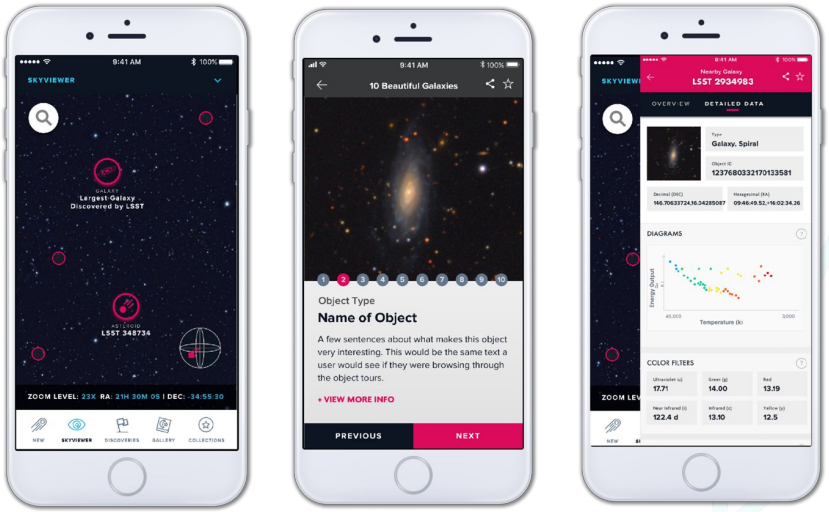
Find **instructions** and contributed RRBs from PCW attendees in the Rubin Community Forum: community.lsst.org/c/sci/pcw-2023



Monday






9:41 AM
100%
SKYVIEWER
Largest Galaxy
Discovered by LSST
LSST 348734
ZOOM LEVEL: 23X RA: 21H 30M 0S I DEC: -34:55:30
NEW
SKYVIEWER
DISCOVERIES
GALLERY
COLLECTIONS
9:41 AM
100%
10 Beautiful Galaxies
Object Type
Name of Object
A few sentences about what makes this object very interesting. This would be the same text a user would see if they were browsing through the object tours.
+ VIEW MORE INFO
PREVIOUS
NEXT
Nearby Galaxy
LSST 2934983
OVERVIEW
DETAILED DATA
Type
Galaxy, Spiral
Object ID
1237680332170133581
DIAGRAMS
Energy Output
Temperature (K)
COLOR FILTERS
Ultraviolet (u)
17.71
Green (g)
14.00
Red
13.19
Near Infrared (i)
122.4 d
Infrared (z)
13.10
Yellow (y)
12.5


SIT-Com
SYSTEM INTEGRATION, TEST
COMMISSIONING
SAFETY FIRST
DEMONSTRATED
Wavefront/Guider
Components
First-Light
Dewar
UPGRADE
Spectrograph
DAQ Data Collection
CONTROL
Hardware
AuxTel
REASSEMBLED
INSTRUMENT
Physical Devices
Sensor Operation
successfully obtained
FITS File
WE JUST MAKE IT WORK.
Polychromatic Flat Fielding
Control Interface
Alignment
ASSEMBLED
SENSOR TESTING