



Eric Bellm

Rubin Project & Community Workshop 9 August 2022





DIA in Commissioning: Platforms, Datasets, Metrics

Alert Production Science Lead









Rubin commissioning data will be processed & analyzed in the USDF at SLAC.

Rubin commissioning data will only be available at the USDF.

Named in-kind commissioning team members are being onboarded to SLAC ~now. (See next session!)

We strongly suggest commissioning team members begin migrating processing and analysis of precursor datasets.

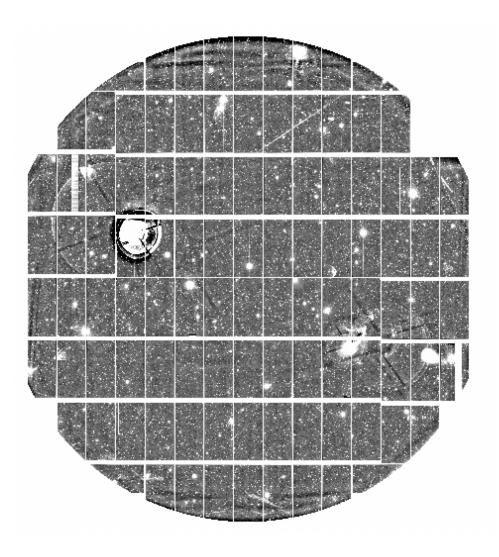


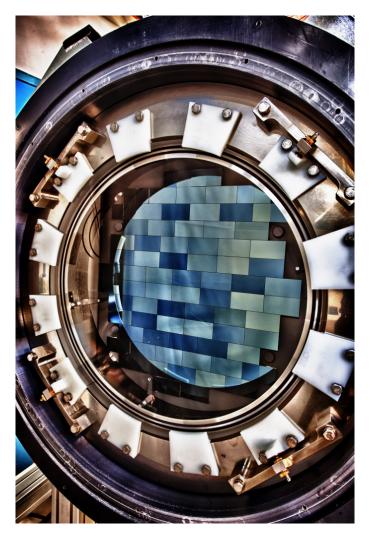
Acronyms & Glossary



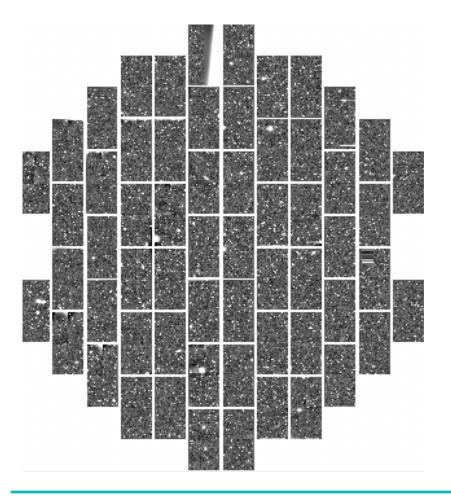


A variety of precursor DIA datasets already exist.





Hits Saha Bulge (DECAT)





COSMOS

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Dark Energy Camera (DECam):

DESC DC2 image simulations

Hyper SuprimeCam (HSC):

(soon) AuxTel LATISS

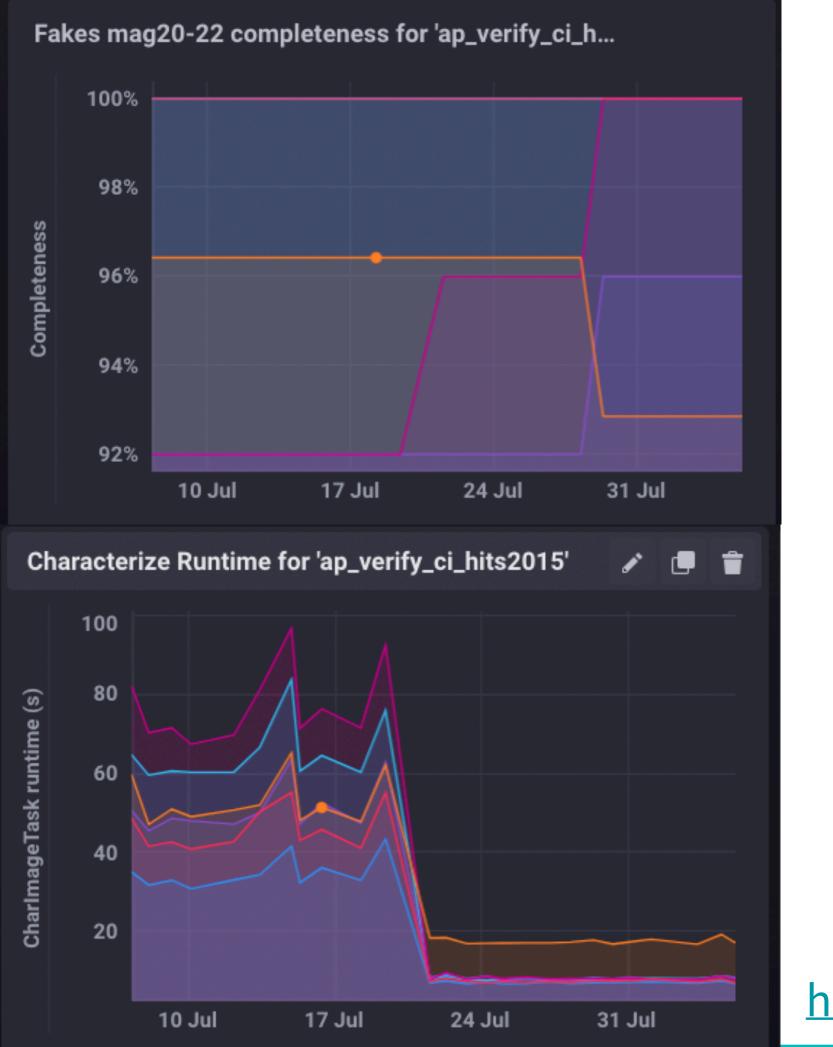
Identifying & building a new DIA dataset with calibrations is time-consuming! Let's discuss what else we need.

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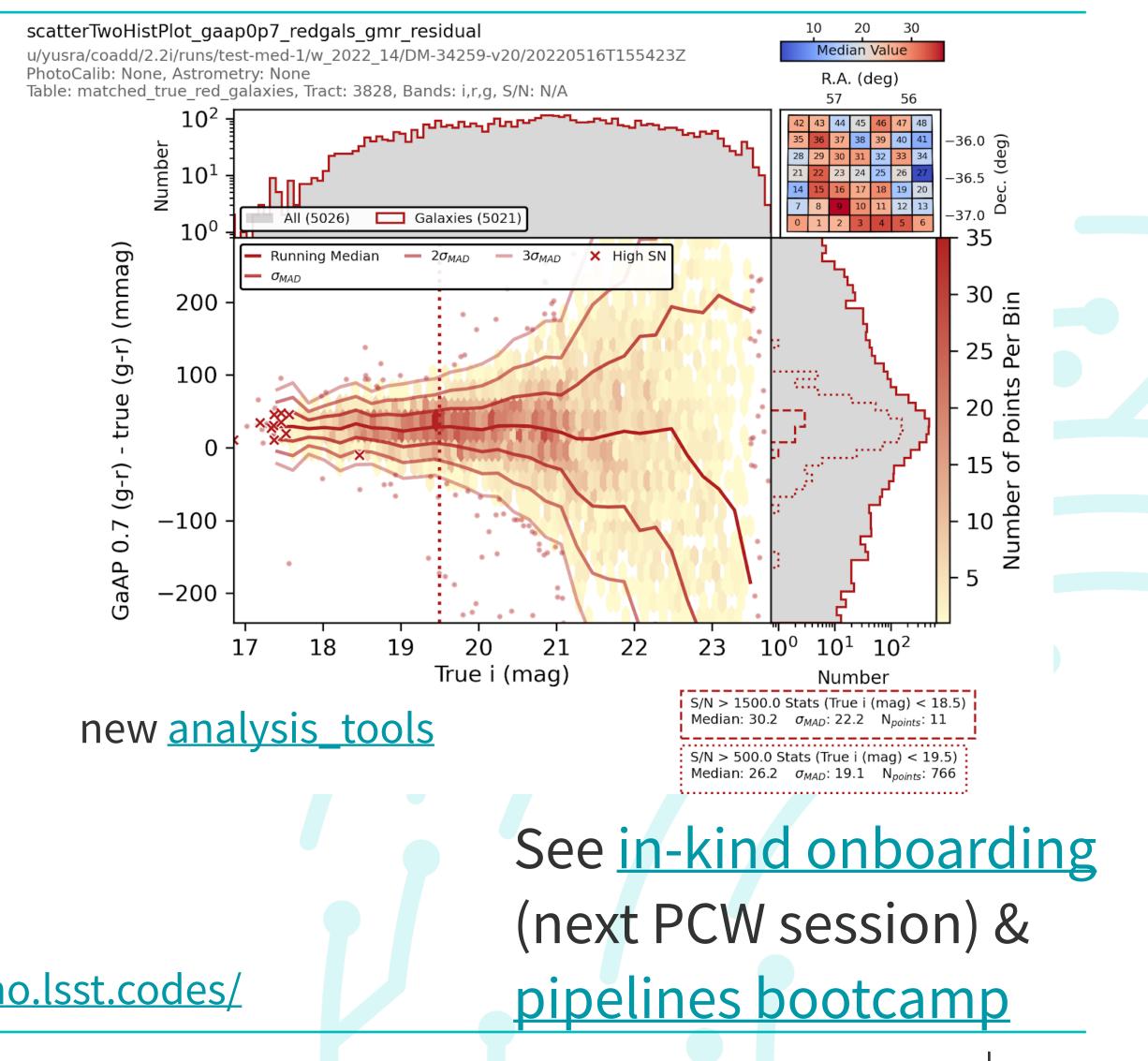


Rubin is developing a range of tooling for computing metrics.



https://chronograf-demo.lsst.codes/

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Near-term DM priorities

- Finish diffim refactor
 - Better-seeing science images
- Regular reprocessing of precursor datasets
- Completeness/purity/latency assessments
- ML spuriousness algorithms
- Pipeline infrastructure (prompt processing, alerts)

Where you can help

- Look at data, find & report systematic problems!
- Truth labels for ML
- Algorithms for selecting incremental template inputs
- ZOGY testing
- Dipoles, bright stars, trails...





Let's work together to get the most out of a very compressed commissioning period!

Due	Name
29-Sep-2022	TMA Contract Complete
30-Sep-2022	EPO Construction Finish
20-Mar-2023	COMP: Camera Pre-Ship Review at SLAC
28-Mar-2023	Dome Complete
17-May-2023	3-Mirror Optical System Ready for Testing
19-Jul-2023	Engineering First Light w/ComCam
05-Sep-2023	Camera Ready for Full System AI&T
14-Feb-2024	System First Light
11-Jun-2024	Test report: Final Pipelines Delivery
11-Jun-2024	Mini-Survey 2 Complete
18-Jun-2024	Operation Readiness Review Complete

Using June 2022 project controls data.

https://www.lsst.org/about/project-status





VERA C. RUBIN **OBSERVATORY**