

Organizers

Rachel Street rstreet@lco.global

Federica Bianco fbianco@udel.edu *with help from*

Weixiang Yu wy73@drexel.edu

Gordon Richards gtr@physics.drexel.edu

Will Clarkson wiclarks@umich.edu

Fabio Ragosta fabio.ragosta@inaf.it

Xiaolong Li lixl@udel.edu

Peter Yoachim yoachim@uw.edu

Sugata Kaviraj s.kaviraj@herts.ac.uk

Peregrine McGehee peregrine.mcgehee@gmail.com

John Gizis gizis@udel.edu

Aprajita Verma aprajita.verma@physics.ox.ac.uk

Timo Anguita tanguita@gmail.com

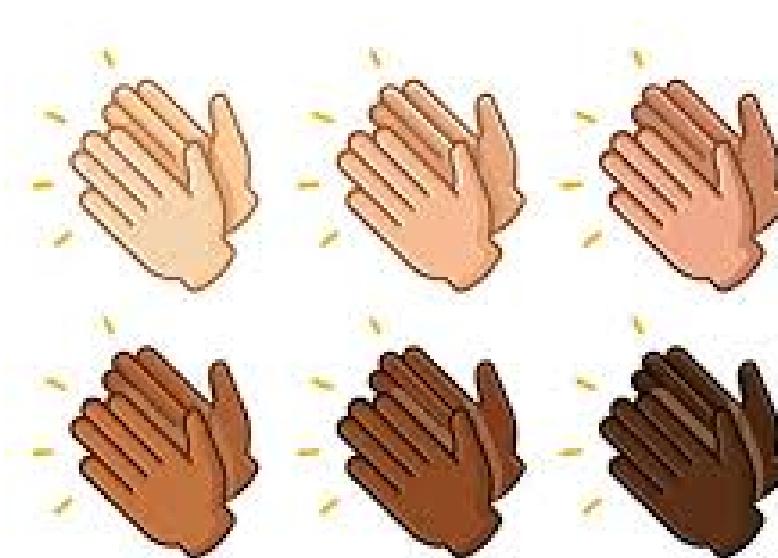
David Trilling David.Trilling@nau.edu

Chad Schafer cschafer@cmu.edu

Rachel Mandelbaum rmandelb@andrew.cmu.edu

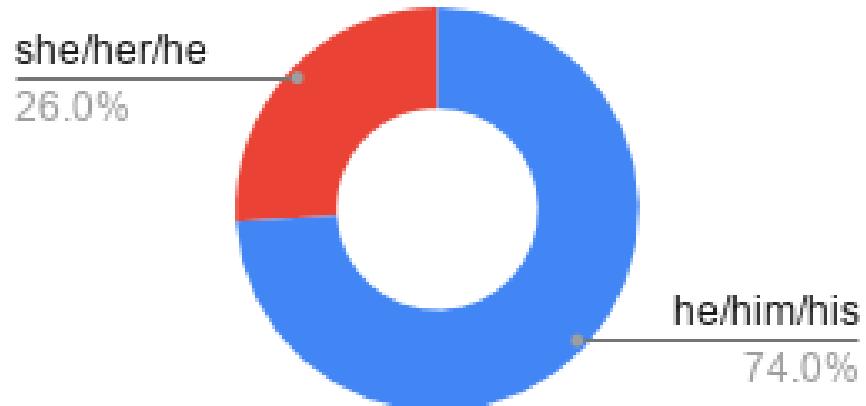
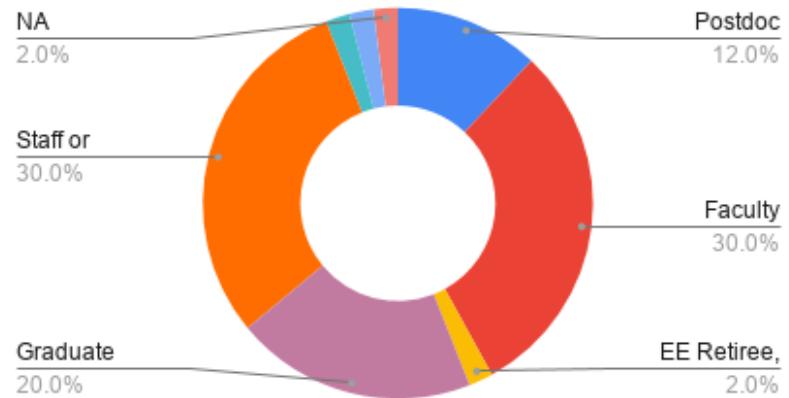
Melissa Graham melissalyningraham@gmail.com

thank you!!

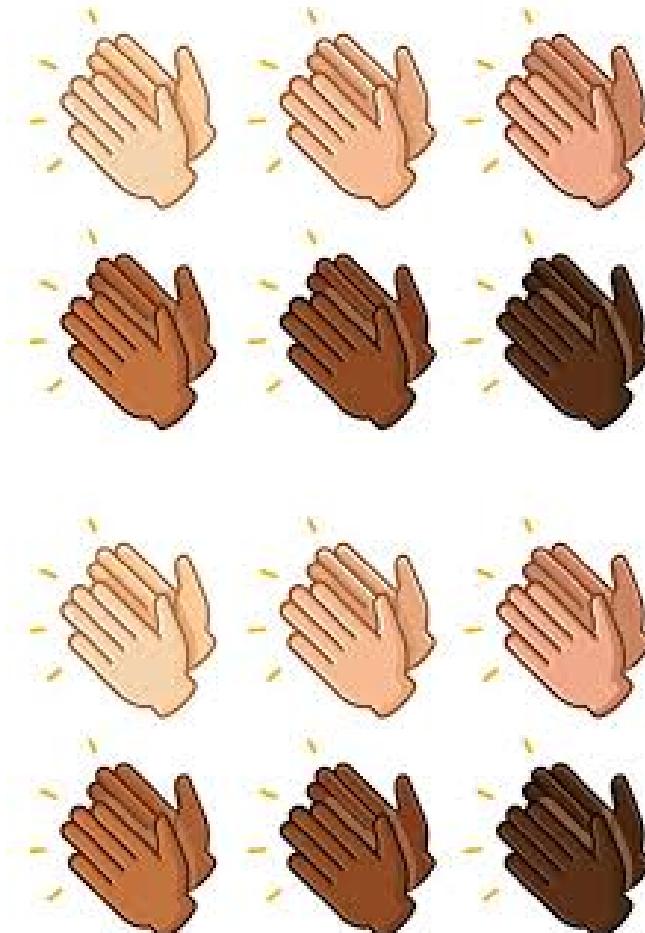


Participants

50 signed up (all spots available!)



thank you!!



Participants thank you!!

Code of Conduct

Rubin Observatory enforces the [AURA Harassment and Code of Conduct Policy](#). Harassment and unprofessional conduct (including the use of offensive language) of any kind is not permitted at any time and should be reported per the instructions in the Reporting section of this page.

Our Values

Rubin Observatory adheres to the following principles in order to provide a learning environment that produces rigor and excellence:

- **Be Kind**

Acting with and encouraging kindness strengthens individuals, relationships, and communities.

- **Trust**

An inclusive, collaborative environment is best achieved when there is mutual trust, based upon honest behavior, throughout the community.

- **Respect**

Inclusive environments foster excellence by challenging us to consider a variety of viewpoints and approaches. We honor alternate viewpoints as opportunities for discussion and learning, and therefore treat others with respect, even if we disagree.

- **Diversity**

In a diverse community, differences between people are recognized and acknowledged as assets. Our community is stronger, more creative, and more innovative because it is fueled by a broad range of ideas and perspectives.

- **Inclusiveness**

Rubin recognizes the importance of actively including and encouraging involvement from all corners; diversity is only a benefit if all members feel empowered to participate. Quoting from the AAS guidelines: "Scientists should work to provide an environment that encourages the free expression and exchange of scientific ideas. They should promote equality of opportunity and fair treatment for all their colleagues, regardless of gender, race, ethnic and national origin, religion, age, marital status, sexual orientation, gender identity and expression, disability, veteran status, etc. Scientific ability must be respected wherever it is found."

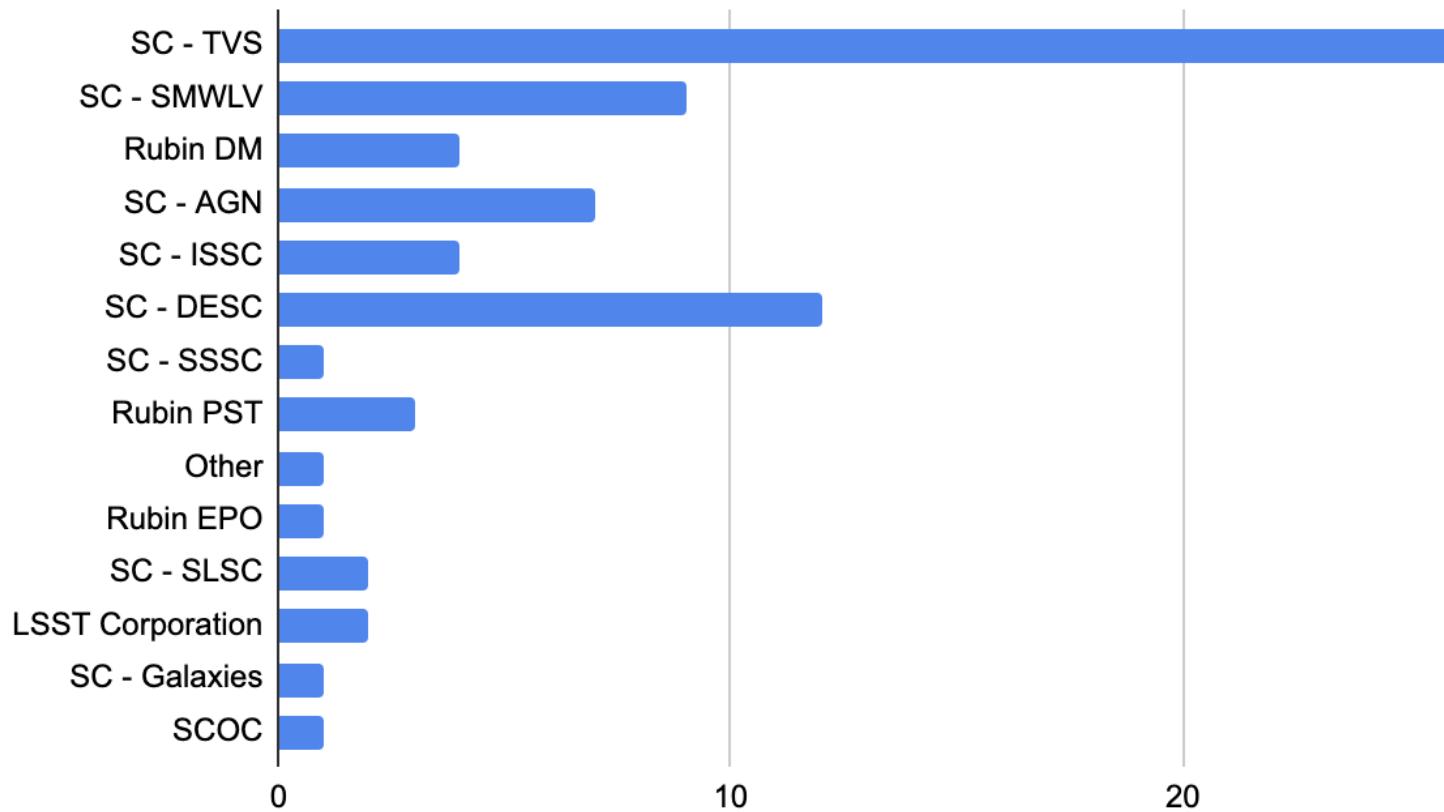
you agreed to our Code of
Conduct

<https://project.lsst.org/meeting/s/rubin2020/resources/coc>



Participants

thank you!!

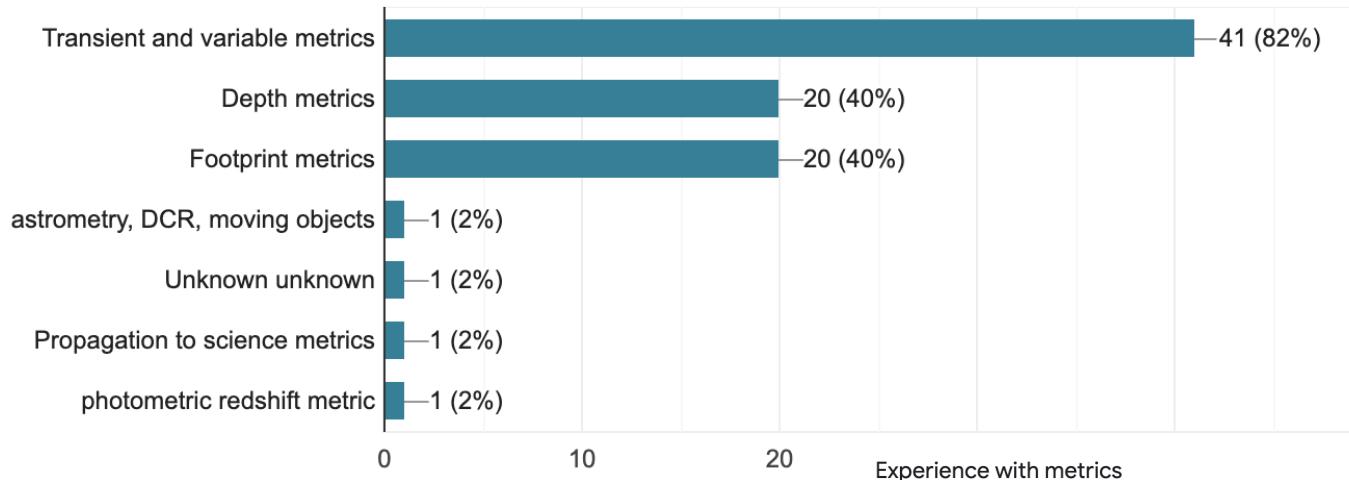


Participants

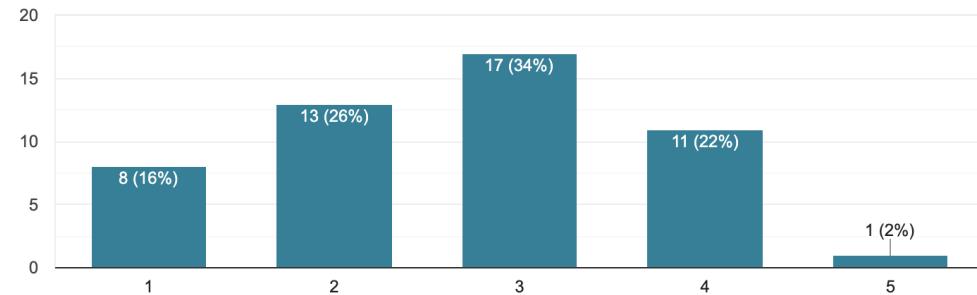
thank you!!

Metrics you are interested in

50 responses



50 responses



how will the hackathon work? schedule

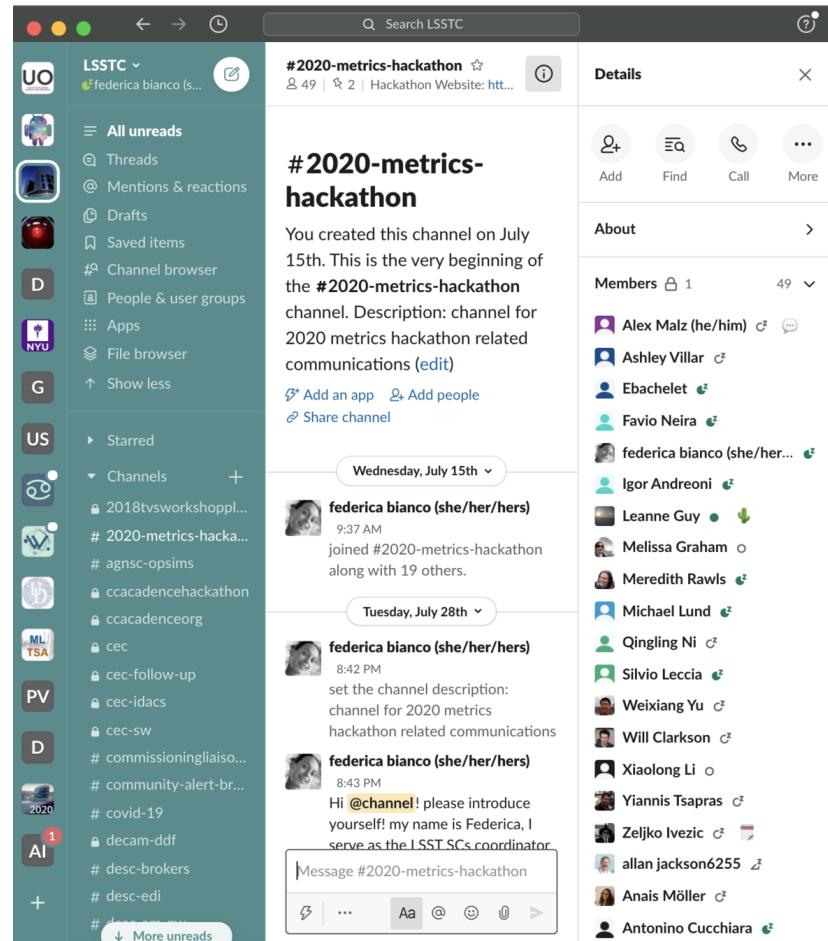
PST	EST	UTC	CST		August 6		August 7
8:00	11:00	15:00	23:00	Opening remarks and rules of engagement - Rubin LSST, observing strategy and the SCO			
8:15	11:15	15:15	23:15				Reports from each session about what metrics they will write
8:30	11:30	15:30	23:30	DEMO: Sciserv - Gordon Richards, Weixiong Yu			
9:15	12:15	16:15	0:15	DEMO: MAF API - Peter Yoachim			
9:45	12:45	16:45	0:45	coffee and tea break			Discussion on boundary conditions
10:00	13:00	17:00	1:00	DEMO: Aggregating MAF results - Will Clarkson			
10:30	13:30	17:30	1:30	Review of available metrics			
11:00	14:00	18:00	2:00	Organization of breakout sessions and working plan definition	Breakout MAF rooms	Breakout MAF rooms	
12:00	15:00	19:00	3:00	Open sessions: the connections will remain open for collaborative work and mentors will be			Organizers collect material from the Breakout rooms

items in color are "plenary" sessions

how will the hackathon work? communication

no emails: use slack for
written communication

#2020-metrics-hackathon



how will the hackathon work? communication

(links are pinned on slack)

Plenaries: [zoom](#) 81096488021
password: 81096488021

Breakouts
[yotribe](#)
password:
rubicn

Rubin metrics hackathon 2020 yotribe.com/r?i=3p8oxe-s5s1p

Create a new room Leave

how will the hackathon work? communication

(links are pinned on slack)

The image shows a video conference interface. At the top, there is a grid of five participant thumbnails: 'Chris' (black square), 'Chitra', 'Julie O'Farrell, IBM Events', 'Trishelle DeLoach', and 'Heather Reid'. Below this is a large, circular diagram representing breakout rooms. The diagram consists of several overlapping circles of different colors (light blue, orange, pink) containing smaller circular video feeds of participants. In the bottom right corner of the interface, there are standard video conference controls: a microphone icon, a camera icon, an upward arrow icon, a 'Create a new room' button, and a 'Leave' button.

Rubin metrics hackathon 2020 yotribe.com/r?i=3p8oxe-s5s1p

Create a new room Leave

Breakouts

yotribe

password:

rubin

how will the hackathon work? communication

(links are pinned on slack)

we will organize
breakout groups
based on similar
metrics
(after the plenary)

we will name
areas by
observatory
e.g. I am in
paranal =>

Rubin metrics hackathon 2020 yotribe.com/r?i=d3p8oxe-s5s1p

Create a new room Leave

how will the hackathon work? communication

(links are pinned on slack)

Availability of Mentors

PST	EST	UTC[hrs]	CST [hrs]		
8	11	15	23		
9	12	16	0		
10	13	17	1		
11	14	18	2	Somayeh Khakpash	Somayeh Khakpash
12	15	19	3	Somayeh Khakpash	Somayeh Khakpash
13	16	20	4	Weixiang Yu	Weixiang Yu
14	17	21	5	Weixiang Yu	Weixiang Yu
15	18	22	6		
16	19	23	7		
17	20	0	8	Mike Lund	Mike Lund
18	21	1	9		Mike Lund
19	22	2	10	Fabio Ragosta	Fabio Ragosta
20	23	3	11	Fabio Ragosta	Fabio Ragosta
21	0	4	12		Mike Lund
22	1	5	13		Mike Lund
23	2	6	14	Fabio Ragosta	Fabio Ragosta
0	3	7	15	Fabio Ragosta	Fabio Ragosta
1	4	8	16	Xiaolong Li	Xiaolong Li
2	5	9	17	Xiaolong Li	Xiaolong Li
3	6	10	18	Xiaolong Li	Xiaolong Li
4	7	11	19		
5	8	12	20		
6	9	13	21		
7	10	14	22		

Please add your name in those cells of the table below where you can be available to answer MAF quest

Thank you for being willing to help!

if your group is stuck on
a coding or similarly
technical question, reach
out to a mentor

if you have MAF
experience sign up as a
mentor please!

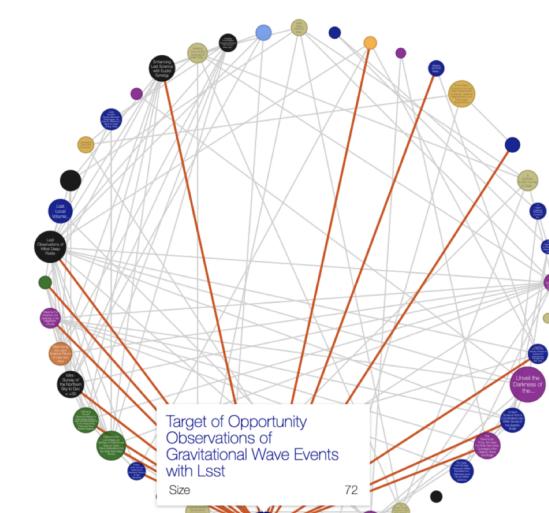
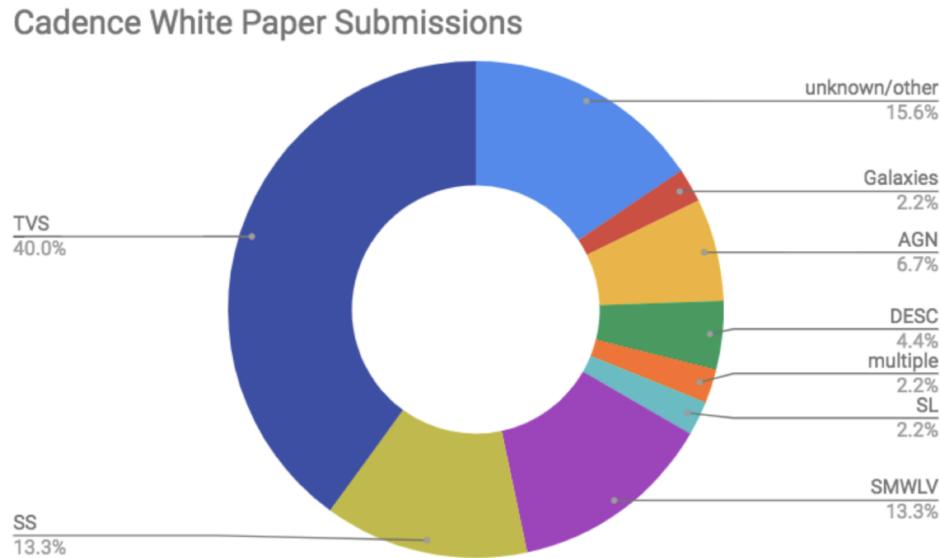
https://docs.google.com/spreadsheets/d/16PDkx_CUJqaToTrEmEXIN4U882WKsNCpCfL672tVPco/edit?usp=sharing

Rubin OpSim and the SCOC



Rubin LSST survey design

November 2018, call for white papers



<https://www.lsst.orgsubmitted-whitepaper-2018>

Rubin LSST survey design

April 2019, SAC recommendations

A Report from the LSST Science Advisory Committee:
Recommendations for Operations Simulator
Experiments Based on Submitted Cadence
Optimization White Papers

The LSST Science Advisory Committee

April 2019

https://project.lsst.org/groups/sac/sites/lsst.org.groups.sac/files/OpSim_experiments.pdf

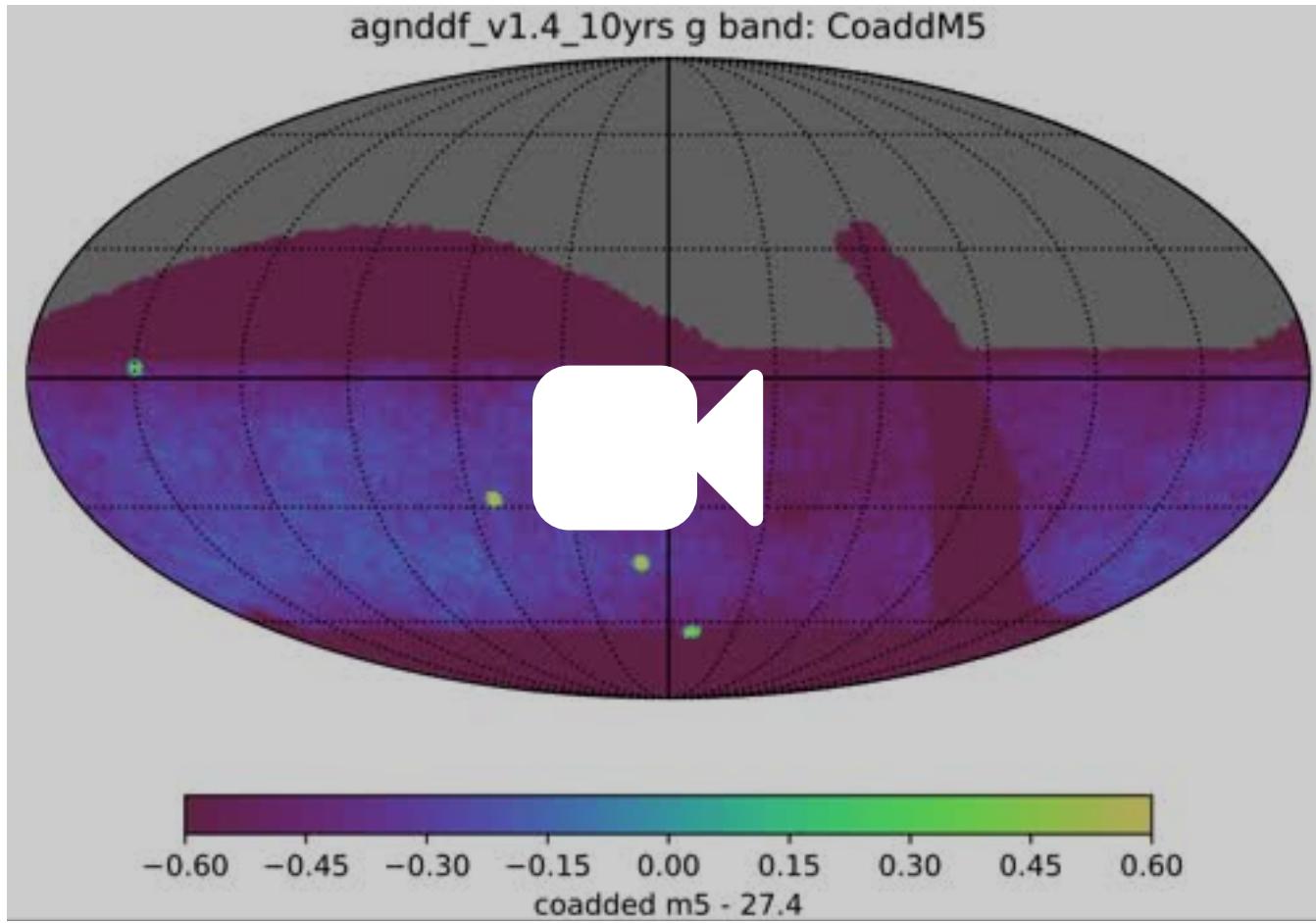
Rubin LSST survey design

Lynne Jones and
Peter Yoachim
prepared the
simulations

Rothchild+ 2019

<https://arxiv.org/abs/1903.00531>

Rubin LSST survey design



Rubin OpSim and the SCOC

FBS 1.4 release (January 2020 update - FBS 1.4 Runs)

■ Science ■ Survey Strategy run-release



ljones Lynne Jones LSST

10 Jun 12

FBS 1.4 runs - released in January 2020.

There are 75 simulations in this release (although we have recently added extra runs as part of a "1.4.1" set, upon requests from the community - so as of April 2020, closer to 120 runs). Most previous sets of simulations have been recreated with a consistent set of software (updates/bugfixes), however some runs have been dropped. Please be sure to note which *version* of runs you are comparing (and generally try to compare runs in the same release). If a run that was useful to you was dropped, please let us know so that we can add it back in. The version information is generally included in the simulation name, it is also contained inside the simulation database file (in the `info` table).

FBS 1.5 release (May Update - Bonus FBS 1.5 release)

■ Science ■ Survey Strategy



ljones Lynne Jones LSST

3 May 7

Dear survey enthusiasts,

**we now also have FBS 1.6 available -
thank you Lynne and Peter!**

<https://community.lsst.org/c/sci/survey-strategy/37>

Rubin OpSim and the SCOC

OpSim discussion at the PCW

Community Evaluation of Rubin Survey Strategies

Pre-View Materials

The Project survey simulations team will provide an update on Operations Simulations (OpSim) and their Metric Analysis Framework (MAF), and host a Q&A on topics related to the community's evaluation of these survey strategies. Anyone with questions, suggestions for discussion topics, or who would like to contribute content to this session is encouraged to contact the SOC Chair.

A List of Previewable Materials {to be added}

Organizer: Peter Yoachim and Lynne Jones

Day: Wednesday, Aug 12

Time: 07:30 HST - 10:30 PT - 13:30 EDT - 19:30 CEST - 03:30 AET +1

Chat and Q&A area: Slack Channel

Survey Cadence Optimization Committee

SCOC

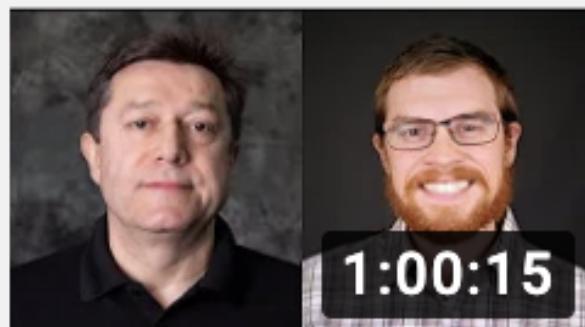
SCOC Charge

The SCOC will be a standing committee through the life of the Rubin Observatory operations. The SCOC tasks include:

- 1) make **specific** recommendations for the cadence choices for the full 10-year survey (LSST)
- 2) help communicate these recommendations to the science community

- 3) make specific recommendations for “Early Science” observations
- 4) during operations, track survey progress and make recommendations for changes in survey strategy

SCOC: expert, transparent, diverse, inclusive



**2020-07-01, Zeljko Ivezic
"SCOC Update" & Keith**

Rubin Observatory

Survey Cadence Optimization Committee

SCOC

Report from Project to SCOC.....	at PCW 2020
<i>workshop to engage w the community.....</i>	early 2021
SCOC report on initial strategy.....	late 2021
Simulation of initial strategy.....	Feb 2022
<i>workshop to fine-tune initial strategy.....</i>	Summer 2022
simulation of the final strategy.....	Late 2022
Start of LSST Operations.....	2023

Survey Cadence Optimization Committee

Committee Members:

Franz Bauer, Universidad Católica, Chile

Sarah Brough, University of New South Wales

Renee Hlozek, University of Toronto

Mansi Kasliwal, Caltech

Knut Olsen, NSF's NOIRLab

Hiranya Peiris, University College London

Meg Schwamb, Queen's University Belfast

Dan Scolnic, Duke University

Colin Slater, University of Washington

Jay Strader, Michigan State University

Lucianne Walkowicz, Adler Planetarium

Non-voting Committee Members:

Lynne Jones, Rubin Observatory, ex officio

Željko Ivezić, Rubin Observatory, Chair

SCOC

- PCW2020: cadence report by the Project delivered to stakeholders
- Nov 2020: the **1st workshop** (virtual)
- Mar 1, 2021: the white paper deadline, followed by SCOC deliberations
- Mar-summer, 2021: a series of Science Collaboration-SCOC liaison telecons
- May 1, 2021: publish details about the 2nd workshop
- Fall 2021: draft SCOC recommendation ready and the **2nd workshop**
- Dec 31, 2021: finalized SCOC recommendation
- Mar 1, 2022: simulations of the recommended strategy available (detailed variations to enable a discussion of fine tuning all the knobs)
- Summer 2022: possibly the **3rd workshop** to fine-tune the recommended strategy, including “early science optimization”
- Dec 31, 2022: the simulation of the adopted observing strategy (the new baseline) produced and made publicly available
- Apr 1, 2023: the observing strategy fixed and implemented in the Scheduler and the Observatory Control Software

today's plan

Gordon Richards+Weixiang Yu . sciserv.org demo



Peter Yoachim.....MAF demo

```
# import our python modules
import lsst.sims.maf.db as db
import lsst.sims.maf.metrics as metrics
import lsst.sims.maf.slicers as slicers
import lsst.sims.maf.stackers as stackers
import lsst.sims.maf.plots as plots
import lsst.sims.maf.metricBundles as metricBundles
```



Rachel Street.....available and proposed MAFs

Rubin Observatory

Breakout organization

Proposed Metrics

...

LSST TVSSC

Hacking - Hacking - Hacking - Hacking - Hacking - Hacking

tomorrow's plan

Quick status report from each group/hacker

Hacking | Discussion of "boundary conditions"

Hacking - Hacking - Hacking - Hacking - Hacking - Hacking

Organizers check with each group and collect material

Wednesday

Organizers report at the PCW OpSim session