

2021-12-20 Meeting notes

Agenda

- [Astro2020](#) - Julie, Roeland, all

Attendees

Julie McEnery, Jeff Kruk, Cristina Oliveira, Dimitri Mawet, Dominic Benford, James Rhoads, Jessie Christiansen, Jeff Kruk, John Mackenty, Keith Bechtol, Neil Zimmerman, Rachel Akeson, Ryan Hickox, Sangeeta Malhotra, Vanessa Bailey

Minutes

Julie / Astro2020

All 3 core community surveys and the coronagraph tech demo have central roles in the science priority areas of the Astro2020 report.

Upcoming February workshop on the transient universe is an example of how we are engaging the community in the topics prioritized by Astro2020.

January AAS meeting events: town hall on Monday, splinter meeting on Cosmology with the Roman Space Telescope

Astro2020 recommendation: NASA astrophysics division should hold a non-advocate review of the Roman science program to set the appropriate mix of survey time...

We have already been working hard to emphasize that the core community surveys won't be driven by a single astrophysics objective.

Instead of APD, CAA will hold a review - in discussion with National Academies. They will consider possible adjustments to survey balance to accommodate general astrophysics.

Example: having galactic bulge survey go longer but observe a larger region of the Milky Way plane. Alternatively, the opposite approach is to optimize the core community surveys for single objectives and thereby reduce their time allocation.

Planning for review to conclude by May 2022.

Roeland / Roman data systems in light of Astro2020

Roman and Rubin will provide rich data sets with unprecedented volume

Astro2020 recommended NASA and NSF explore new mechanisms to improve coordination for data archive research.

Discussions already have occurred about joint processing for Rubin, Roman, and Euclid data, but so far there is no funding mechanism for this.

The Roman SOC is not currently funded to develop big data discovery tools.

Dominic - we're working to figure out to what extent joint processing will be supported for Roman-Rubin-Euclid. The Decadal was implicitly supportive but not explicit about the value of that. But we're going to try to do something!

Discussion

Ryan - What is funding mechanism for data analysis?

In the upcoming proposal call, Roman has funding for the community to develop data analysis tools.

During Phase E, the General investigator program will fund Roman data studies.

Is there enough funding? Perhaps not right now, but Phase E is far away. Will be better to have that discussion in 5 years. It is tracked by the project, since it is related to one of the RfAs from the mission CDR.

Jessie - how much flexibility to change observing plans? The hardware choices have been intertwined with the planned observations and scientific objectives. But we could choose to do something different with the observations.

Some latitude in redefining the mission, but not in redesigning hardware

A lot of precision and calibration requirements are based on what you observe and how you observe it.

Jeff - one example is that we have planned 24 hour cadence in response time. It is possible to reduce the response time with some investment, without changing hardware. It requires scheduling ground stations in advance.

Perhaps someone can investigate those kinds of questions.

John - In the Astro2020 slides, consider distinguishing between things that only Roman is capable of doing, versus adding value and helping other projects. Emphasize where Roman is really important, versus what it will contribute to, with overlap with Hubble and JWST. The galactic bulge survey is unparalleled, the cosmology capabilities are obvious

Next meeting

Was originally scheduled for Jan 17, move to Jan 24? Only chance to discuss ROSES draft call.