2021-08-06 Meeting notes

Agenda

- White paper call overview (**pptx**, **outerspace page**)- Julie
- **Resources/documentation** - Josh, Rebekah, James

Attendees

Alice Shapley, Ashley Villar, Cristina Oliveira, David Spergel, Dimitri Mawet, George Helou, Harry Ferguson, James Rhoads, Jan Tauber, Jessie Christiansen, John Mackenty, Julie McEnery, Joshua Schlieder, Kenneth Carpenter, Megan Donahue, Neil Zimmerman, Patrick Lowrance, Peter Melchior, Rachel Bean, Rebekah Hounsell, Roeland van der Marel, Sangeeta Malhotra, Vanessa Bailey

Minutes

Julie / Early Definition Survey RFI

Outerspace page about RFI call https://outerspace.stsci.edu/x/u4BtBg - *3 documents describing the implementation plans for the process itself. These include the text for the RFI itself (which we'll likely distribute as a webpage), a template specifying what we are looking for in the white papers, and a charter for the evaluation committee*

Lightweight process. Is there a compelling case to define a survey early? If so, narrow down to a few concepts. There will be later opportunities to define details of such a survey.

Project has defined a template for 2-page white papers (see Julie's slides in above link).

One half page (max) to outline a possible survey. Then the authors are asked to describe preparatory activities that are enabled by an early definition.

Question on timeline:
-Trying to announce the call within the next week. Responses due in October.
-ROSES may not due until end of January

Suggestion to allow authors to submit supplemental materials.

Suggestion to make it more clear that we're asking WHY this a given survey needs to be defined early.
Adjust language for less resemblance to deep field call. Consider replacing the word "preparatory"

Dateline may be too close. Consider delaying to beginning of November? More breathing room since beginning of semester is a busy time of year for academics.
This deadline chosen (6-8 weeks after release) to make sure there was enough separation from the ROSES deadline.
We may learn things from the RFI responses that will affect some aspects of ROSES call.
For context, we kept the effort level for this below a decadal white paper.

Josh, Rebekah, James / Resources and documentation

Goddard team has assembled new public technical resources for Roman that cover the baseline knowledge needed to respond to the white paper RFI:
https://roman.gsfc.nasa.gov/science/additional_science_resources.html

The webpage is still a draft, so comments from the RSIG are still welcome. We plan to revise and finalize over the next week.

-General info on mission and observatory compiled by Rebekah Hounsell
-WFI reference info and technical overview
-WFI imaging sensitivity table created by James Rhoads. Expected to be at a sufficient level of detail for most feasibility estimates submitted to white paper RFI
-Download link for zipped file of simulated PSFs
-Zodiacal and thermal background count rate levels
-Grism and prism parameters and sensitivities
-Detector parameters
-Sensitivity calculator by Rebekah Hounsell

Anticipated Performance Tables compiled by Jeff Kruk:
https://roman.gsfc.nasa.gov/science/anticipated_performance_tables.html
These pages provide a deeper level of detail than the new sensitivity tables.

Imaging sensitivity calculator by Rebekah Hounsell:
Linked Jupyter notebook and static example (html): https://roman.gsfc.nasa.gov/science/ETC/ExposureTimeCalc.html

Discussion

Question to RSIG: Are we missing anything significant from perspective of potential white paper authors?

Is Rebekah's code maintained in a git repo?
Not yet, but we will eventually have that.

Can the simulated PSFs be downloaded in FITS format?
Yes, see "Point-spread Functions" section of reference info page

Analogous to the stellar PSF models, are there model galaxy PSFs at various redshifts?
Not currently. Different tools to consider for that case are WebbPSF, Pandeia, and Galsim (ensembles of galaxies)
We will try to make the link to WebbPSF more obvious.
Since WebbPSF may require a configuration/recipe, suggest supplying that as well.