

2021-04-14 Meeting notes

Agenda

- [Roman Science Teams Discussion](#) - Julie, all

Attendees

Alice Shapley, Ashely Vilar, Bernard Rauscher, Cristina Oliveira, Dara Norman, Dimitri Mawet, Dominic Benford, George Helou, Gisella de Rosa, Harry Ferguson, James Rhoads, Jason Rhodes, Jessie Christiansen, John Mackenty, Joshua Schlieder, Julie McEnery, Keith Bechtol, Ken Carpenter, Megan Donahue, Neil Zimmerman, Peter Melchior, Rachel Bean, Rachel Akeson, Roeland van der Marel, Sangeeta Malhotra, Saurabh Jha, Zeljko Ivezić

Minutes

Discussion on this topic will be kept general, since we don't want to conflict RSIG members from proposing to future science teams.

In our current structure, if you were not a member of a selected SIT, it's difficult to break in.

Trying to achieve:

- Clear avenues for people outside of funded science teams to become engaged with the project
- Regular funding opportunities, variety of award sizes and durations, to ensure many new people continue to become involved
- Opportunities to support existing science teams
- Longer support for software and pipelines

Mixture of consortiums (larger teams) and independent, small teams

Not necessarily a 1-1 mapping between teams and funding.

Strawman example

Limited number of teams with specific responsibilities and deliverables with longer horizons

Those teams have responsibility for coordinating a broader community, with governance plans and encouraged open membership policies

In addition, a biannual call for preparatory science proposals to cover theory, simulations, calibration studies, support observations, etc.

ROSES call in February includes a "stub" for Roman opportunities. Includes opportunities for CGI community participation program.

WFIPS = Wide Field Instrument Preparatory Science investigations

KPTs = Key Project Teams

CCPP = CGI community participation program

Comments

Code of conduct - aspects like promotion opportunities within groups, involving smaller institutions

Dominic - recent Theory call has an inclusion pilot program, which could be adapted for this.

How are proposals evaluated?

We need to bring the community up to speed.

Evaluate based on expertise, not experience.

Could reserve some resources for proposals

For the ambitious science to succeed, we need as large a participation as possible. For key projects, there is an opportunity to imagine a different approach. At one extreme, what we have now, on the other extreme, crowd-sourced rather than PI-led.

In an open collaboration, the funding would not flow through one PI, it would be awarded to individuals following peer review.

If it's only for 1 year, it's difficult to fund a student.

Disadvantage of the open collaboration approach: Collaborations already have trouble putting resources into important technical tasks as blocks, factoring it out makes it more difficult.

Empower someone like an adjutant scientist to help decide resource allocation

Analogy to encyclopedia and wikipedia as extremes.

We should avoid the worst of both worlds.

NSF and DOE-funded science teams have an intermediate model.

Roman is a different kind of flagship. Rubin and DES lack the resources to find the best way.

Instead of focusing on funding, we should ask how people in the end work on the data.

Can we organize friendly competition between groups. Like Planck and WMAP.

Want to avoid scenario where a lot of little pieces go out and never form the whole.

RSIG can provide guidance on priorities.

Leadership is needed to get data in a state to enable creative ideas. Sloan example

We can imagine that in some areas, having a large key project team is the right solution.

This discussion will continue at future meetings. In terms of timing, we need inputs within the next 3 months.

When planning proposal timeline, consider those with teaching loads. When is the worst time?

Chat window

from Jessie Christiansen (Ext) to Everyone: 3:42 PM

What do you mean by 'large'?

from Jessie Christiansen (Ext) to Everyone: 3:42 PM

(Or regular, for that matter!)

from John Mackenty (Ext) to Everyone: 3:47 PM

so could there be more than one group working a specific science topic (e.g. weak lensing)?

from Jessie Christiansen (Ext) to Everyone: 3:49 PM

I'm sorry I have to run, school pick-up.

from Megan Donahue (Ext) to Everyone: 3:49 PM

OK! should we record?

from Dara Norman (Ext) to Everyone: 3:52 PM

I would include other kinds of research inclusion as part of the collaboration teams including active mentoring plans and partnerships with researchers at smaller and underserved universities.

from Saurabh Jha (Ext) to Everyone: 3:54 PM

Is it okay to share these slides or would you prefer not yet?

from Keith Bechtol (Ext) to Everyone: 3:55 PM

How would the proposals be evaluated? I ask this in part because it may have been difficult for community members who are not part of the existing SITs to be involved and built up a track record of contributions to Roman

from Megan Donahue (Ext) to Everyone: 3:56 PM

Dominic -- can you share the link to this?

from Dominic Benford (Int) to Everyone: 3:56 PM

<https://nspires.nasaprs.com/external/viewrepositorydocument/cmdocumentid=807248/solicitationId=%7B248E19BD-66E8-802A-4F96-60799A41CF6F%7D/viewSolicitationDocument=1/D.4%20ATP%20amend%209.pdf>

from Megan Donahue (Ext) to Everyone: 3:56 PM

Thanks

from Dominic Benford (Int) to Everyone: 3:59 PM

@Rachel: if we can't name names for bad collaborations (and I understand why), can we at least get enough info to learn from them?

from Megan Donahue (Ext) to Everyone: 4:02 PM

You could reserve some of the resources explicitly for people with no direct experience in the SITs

from Megan Donahue (Ext) to Everyone: 4:03 PM

if expansion is one of the desired outcomes

from Dara Norman (Ext) to Everyone: 4:03 PM

@Dominic where do I find the document you mentioned. Thanks

from Dominic Benford (Int) to Everyone: 4:03 PM

@Megan: I hear you, although it is tricky to put in requirements based on previous work in evaluations for federal procurements.

from Megan Donahue (Ext) to Everyone: 4:03 PM

Dara - I just emailed you a copy

from Dara Norman (Ext) to Everyone: 4:04 PM

Thanks!

from Saurabh Jha (Ext) to Everyone: 4:06 PM

What are some of the top level goals for the Key Project Teams: is it designing the core survey, implementing the core survey, doing the analysis, writing a science paper with a particular measurement, all of the above?

from Dominic Benford (Int) to Everyone: 4:07 PM

@Saurabh: most of the survey design is supposed to be an open process, but maybe there are details that don't work with that?

from Rachel Bean (Ext) to Everyone: 4:08 PM

In a "bad" collaboration, working group leads tend to be very senior members who have stayed in these roles for years/decades and have been very reluctant to relinquish them. Such collaborations have meetings with SOC/LOCs who don't consider how speaking opportunities should reflect the diversity (gender, ethnicity and early/late career) of the collaboration. Their communications practices do not include best practices for inclusion. Other collaborations have frequent 2-3 year rotations of working group leads and this has provided excellent opportunities for early career members who have heavily contributed to the collaboration to step up into roles (and move up in collaboration leadership), it helps their career progression and creates a vibrant climate of recognition and respect. Codes of conduct and communication practices are also put in place to ensure all members of the collaboration feel their voice is heard (both literally and metaphorically).

from Keith Bechtol (Ext) to Everyone: 4:09 PM

To what extent does the Roman project see as having a role in defining the functional science collaborations that we expect to exist during the mission?

from Dara Norman (Ext) to Everyone: 4:09 PM

When you look at the Rubin open collaborations, one of the big problems has been lack of funding to support the collaborations to do work. It will be important to provide some funding (that maybe the collaboration can control?) to support people who are active in those collaborations.

from Peter Melchior (Ext) to Everyone: 4:16 PM

I agree with Dara, and I am concerned that the proposed model could become the worst of all worlds

from Keith Bechtol (Ext) to Everyone: 4:16 PM

Within Rubin, one has to be very careful to distinguish between the DESC and the other science collaborations

from Dara Norman (Ext) to Everyone: 4:21 PM

^^

from Megan Donahue (Ext) to Everyone: 4:23 PM

Particle physicists require in-coming to contribute <software, hardware support> to the experiment as part of their criteria for inclusion in the analysis and support for (travel, students, publication)

from Megan Donahue (Ext) to Everyone: 4:26 PM

Consider how much HST/Chandra changed how people do astronomy -- less wheel-reinventing for starters

from Megan Donahue (Ext) to Everyone: 4:27 PM

Another transformer is SDSS ... although much of that didn't come with dollars for much of the community

from Dara Norman (Ext) to Everyone: 4:27 PM

I want to point out that people respond to INCENTIVES so what are the incentives to engage in DEI?

from Saurabh Jha (Ext) to Everyone: 4:28 PM

I appreciate John's vision here, and totally agree with Dara that using that ability to change the scientific culture is an opportunity to advance equity that we should definitely take advantage of.

from Peter Melchior (Ext) to Everyone: 4:28 PM

What I hear from John could be addressed by a SDSS model, namely make the data as useful as possible and then let the community have at it

from Keith Bechtol (Ext) to Everyone: 4:29 PM

I think an important point about the success of the DOE model (e.g., DES, DESC) is that the opportunity to propose for support comes at a regular cadence, and the selection process is evaluated based on contributions to the mission and contributions in the context of the collaboration. This promotes the success of the mission, people working together, and new people to get involved

from Keith Bechtol (Ext) to Everyone: 4:29 PM

Not necessarily saying it is the only way

from James Rhoads (Ext) to Everyone: 4:30 PM

How good is the DoE model at bringing in new people and enlarging the active community? (And is the answer to that an intrinsic feature of the model or not?)

from Dara Norman (Ext) to Everyone: 4:31 PM

Just having access to data is not sufficient to support equity of using the data. Roman will need to think about how to implement equity as they provide the data.

from Julie Mc Enery (Int) to Everyone: 4:32 PM

Thanks Dara, I'm paying attention to your comments

from Megan Donahue (Ext) to Everyone: 4:33 PM

Cross-calibration with other instruments will need the expertise from other observatories

from Keith Bechtol (Ext) to Everyone: 4:33 PM

I second the points made by Dara here. I have some concerns how this model encourages structures/collaborations that explicitly promote equity

from Dominic Benford (Int) to Everyone: 4:33 PM

@Dara: Agreed! Funding is part of it, and making this part of selections is part of it, as is trying to engage more researchers from institutions that featured prominently in the past. What else has to be included?

from Dominic Benford (Int) to Everyone: 4:35 PM

* weren't featured prominently

from Megan Donahue (Ext) to Everyone: 4:35 PM

The "gentleman-astronomer" mode is one of the things holding the field back; assuming that something that takes time can be done "for free"

from Megan Donahue (Ext) to Everyone: 4:35 PM

is what keeps people out

from Megan Donahue (Ext) to Everyone: 4:38 PM

Sorry -- i need to run out ---

from John Mackenty (Ext) to Everyone: 4:38 PM

agreed Megan..but the "system" most often funds the "haves" since, among other advantages, they have the time to write proposals.

from Dara Norman (Ext) to Everyone: 4:40 PM

As you look at those calls, please keep timing in mind and when folks at smaller institutions or others might be able to participate.

from James Rhoads (Ext) to Everyone: 4:40 PM

Academic schedule: Final grades time is bad, so is beginning of term.