

Science Investigation Teams

- Supernova Cosmology: Ryan Foley, Saul Perlmutter
- Nearby Galaxies: Ben Williams
- Extragalactic: Brant Robertson
- Weak Lensing and Galaxy Redshift Survey: Olivier Dore
- Exoplanet Coronagraphy: Bruce Macintosh, Margaret Turnbull
- Archival Research: Alexander Szalay
- Cosmic Dawn: James Rhoads
- Exoplanet Microlensing: Scott Gaudi
- Milkyway: Jason Tumlinson

~300 scientists in total

- scientific performance requirements related to the specific science area,
- design of overall observational strategy concept,
- science data analysis techniques,
- ground and space calibration requirements,
- science simulations, precursor observations,
- ground calibration, observational needs, data processing, ancillary data collection/incorporation, analysis, dissemination and documentation of the proposed science investigation.
- Current science team contracts expire later this year

Adjutant Scientists David Spergel - WFI Jeremy Kasdin - CGI



Discussion on Future Science Organization

- SITs end in Fall 2021 what next?
- Need to continue to provide support to the Roman science community
- Need science input into many Roman technical/operational studies/trades



Goals

What are we trying to achieve

- Ability for people to engage with Roman project/science teams independently of funding
 - Community science teams, RSIG, What else
- Regular funding opportunities for support to work independently of existing science teams on all aspects of Roman Science
 - Not everyone wants to be part of a collective
- Regular funding opportunities for support to work with existing science teams
- Longish term stable support of teams to allow development of software/pipelines etc.
- Variety of award sizes and durations
 - Providing opportunities for regular and large awards may make it easier for new people to join the Roman community



A Strawman example

- Issue a call for a limited number of teams with specific responsibilities/deliverables and tasks with long term horizons
- These teams have responsibility for coordinating a broader community
 - Require science governance plans: publication policy, code of conduct, rotating scientific leadership
 - Encourage open membership policy
- In addition, issue biannual call for preparatory science proposals (to cover theory, simulations, calibration studies, support observations etc)
 - This can include support to join the science analysis teams
 - Or work independently



Science Community Structure and Support

- Roman opportunities will be announced in the ROSES call this month
 - Currently a "stub" with details to be provided in an amendment
 - Includes opportunities for CCGI (CGI Community Participation program), WFI preparatory science, and key project teams.
 - Accommodates stable long-term funding to support development of needed deliverables,
 - flexible shorter-term opportunities to allow us to be more responsive to a changing science landscape
 - and will allow a variety of different science community models large open consortia,
 small PI led teams etc



Wide Field Instrument Preparatory Science (WFIPS) investigations

– This provides opportunities to work on a broad range of science preparation efforts, including simulations, science feasibility studies, supporting observations, analysis software development, activities related to mission performance verification, hosting or participating in data challenges, and science operations preparation.

Key Project Teams (KPTs)

 This opportunity will provide funding to enable the significant scientific results in cosmology and exoplanet demographics that demonstrate *Roman* meets its mission success criteria.

Coronagraph Community Participation Program (CCPP)

 This provides an opportunity for proposers to work with the coronagraph instrument team to plan and execute its technology demonstration observations.