

Roman ROSES: Three Opportunities



Wide Field Instrument Science

- This opportunity provides support to prepare for and enhance the science return of Roman that can be addressed with its Wide Field Instrument (WFI).
 - Multiple calls between now and launch
 - Regular (2-year) and Large (4-year) categories

WFI Project Infrastructure Teams

- This opportunity provides sustained funding for teams to develop infrastructure needed to enable the community to pursue *Roman*'s ambitious science goals in cosmology and exoplanet demographics that are part of Roman's mission success criteria.
 - Additional science areas that require extensive and sustained infrastructure development will also be considered.

Coronagraph Community Participation Program (CPP)

- This provides an opportunity for proposers to work with the coronagraph instrument team to plan and execute its technology demonstration observations.
 - Multiple calls between now and launch



What's different from the SITS?



- Larger number of small teams/individuals, many on short term (2-year) awards
 - Greater turnover, more flexibility to adjust science team to evolving science landscape and project needs
 - Multiple opportunities for new people to join
- WFI Project Infrastructure teams have long term baseline (continue through to end of prime phase)
 - Provide continuity
- Strong emphasis on science community coordination that is independent of the individual science teams
 - Community Science Consortia
 - Reset structure of joint working groups (keeping the ones that work well)
- Undergrad supplement for WFS
- ROSES solicitation in ~2 years
 - Additional CPP and WFS opportunities
- CGI SIT replaced by CPP
 - Group of ~6 individuals/small teams who work together
- FSWG replaced by ISWG
 - PIT PIs, selected WFS reps, ex-officio and additional appointed members as needed



Wide Field Science Proposals



Preparing for and enhancing Roman WFI Science

- Can include, but are not limited to, any combination of the following topics:
 - Precursor observations using ground- and/or space-based observatories to prepare for future *Roman* science observations and/or to provide calibration capability;
 - Development of *Roman* analysis software beyond that provided by the Science Centers. This could include topics like machine learning techniques in time domain astrophysics, high precision astrometric measurement techniques, etc.;
 - Development of algorithms for joint processing with data from other space- or ground-based observatories such as deblending algorithms, photometric redshift training and calibration, or forced photometry;
 - Theoretical and/or phenomenological modeling directly related to Roman capabilities;
 - Instrument calibration and characterization;
 - Development of survey strategies;
 - Development of simulation tools, producing simulated datasets, and conducting or participating in data challenges.

Supporting the Roman project and Science Centers

 WFS supported teams are expected to form part of the funded Roman science community providing support and guidance to the Roman project and science centers.