

Opportunities for Your Participation in Roman

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Roman is for You





- All Roman observing time is available through open processes
- Major Core Community Surveys will be defined using a community-driven open process
- Observing time available via General Observer (GO) proposal opportunities
- Key Projects funded science investigations using these surveys – will be openly competed
- Preparatory Science funded work preparing for any of the above, also via proposal opportunities
- All data will be available to the community with no period of limited access



Roman Opportunity in 2021

NASA expects to issue a call for proposals in 2021 providing opportunities for the community to begin the major work of *Roman*'s science observations.

Not the *only* opportunity, merely the *first*, but for some people it may be the most appealing.

Broad community announcement anticipated next month, with full solicitation this summer.



Some Definitions (i)

Core Community Surveys: a large fraction (but ≤75%) of the prime mission used for revolutionary surveys of unprecedented scale

- Will be determined by an open process c. next year. Roman will announce ways you can be involved!
- For design purposes, assuming three Core Community Surveys defined by 2010 Decadal Survey, with open data:
 - Extragalactic Wide Area Survey
 - Extragalactic Time Domain Survey
 - Galactic Time Domain Survey
- Details that were used in design: Akeson et al. 2019
- For the future, specifying the *Roman* surveys includes making them broadly useful for a wide range of science purposes.



Some Definitions (ii)

Key Project Teams: science teams tasked with conducting major scientific investigations using the data from the Core Community Surveys

- Projects that require a scope of preparation that motivate selection well before launch (e.g., for precursor observations, calibration, pipeline algorithm development, simulations, etc.)
- Tasked with doing the work of demonstrating that Roman meets its mission success criteria in the areas of cosmology and exoplanets. (visit https://roman.gsfc.nasa.gov/science/rsig.html)
- Expect to solicit this in 2021 for a 5-year renewable term covering pre-launch activities followed by science operations.
- Responsibilities would include data products, source code, science publications – akin to Spitzer Legacy or Hubble Treasury Program



Some Definitions (iii)

Wide Field Instrument Preparatory Science: soliciting in 2021 to work on a broad range of science preparation efforts

- Potentially 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
- Large scale science investigations that require significant precursor development, but which aren't yet part of the Core Community Surveys, would fit in this category for now
- Anticipate future such opportunities

Coronagraph Community Participation



Community Participation Program

Team that will use *Roman*'s Coronagraph Instrument to meet its objectives associated with an in-space technology demonstration of a high-contrast coronagraph.

Opportunity for proposers to work with the coronagraph instrument team to plan and execute its technology demonstration observations.

Proposals accepted only from small groups. PI of each selected investigation, plus coronagraph project & international partner representatives, form the Community Participation Program Team.

Certain focus areas will be identified in the solicitation (things like target/observation prep work; simulations; operation preparation; data analysis tools). Proposers can choose from the list, and can include other areas.

Roman Science Interest Group



Roman Science Interest Group

Formed in 2020 w/15 appointees to provide broad-based community input on the *Roman* project

Primary purpose is to assist NASA in ensuring that the interests of the scientific community are served by *Roman* in planning for and executing mission development and operations

(visit https://roman.gsfc.nasa.gov/science/rsig.html)

Planning on phased appointments toward 3-year term, so ~5 new members will be selected late 2021; solicited via open call, announced ~fall.



Recap of Roman Opportunities

Community Input

Core Community Surveys

Enable Astro2010 science priorities & more!

Data

2021 Science Proposals

Key Project Teams

science using Core Community Survey data

Analysis

GO Proposals

Proposed Observations

Data

GO Proposals

General Observer Science
Using any data

Analysis

2021 Science Proposals

Wide Field Instrument Preparatory Science

Precursor

Questions?

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