

Early Definition Request for Information

November 2021

Take away from RSIG discussions

- **Avoid tying up significant time in the early mission**
- **Open to science topic**
- **Should benefit from being defined early/soon, this does not mean that the observations need to happen early in the mission**
- **Should be defined via open community process (i.e. white papers/workshops rather than competitive proposals)**
 - Resulting survey is community owned (i.e. no PI)
 - Desirable to have broad science reach
- **Note:**
 - This is not the only thing we will do, also space for other general astrophysics surveys defined closer to launch, core community surveys will be ongoing

Early Survey Definition Option

- Assign up to one month of observations to one survey to be executed within the first two years of the mission
 - Allows for a substantive survey, but does not commit to a large amount of early observation time
 - Leaves most of the general astrophysics survey time to be assigned closer to launch (and after the core community surveys are defined)
 - Science topic/justification is open (i.e. this does not have to be a deep field)

Community input on pre-selection of an Astrophysics Survey

- **Two Step Process**
 - **1) Light weight white paper request for information**
 - Short (~2 pages) focusing on science case, science benefit from pre-definition and brief outline of strawman concept / or describe why we should NOT proceed
 - Determine whether to proceed with pre-selection of a survey
 - Which scientific area(s)/survey concept(s) to focus on
 - **2) Community process to define/optimize the survey**
 - Opportunity for additional people/groups to provide input on implementation of the survey concept
 - Community owned – no PI
 - Support for preparatory activities available via multiple ROSES calls between now and launch

- Sent out announcement on August 27, deadline on Oct 22
- Webpage with technical information to help people evaluate candidate survey performance
- White papers include:
 - Do you support early definition of a survey,
 - Science investigations enabled by the candidate survey,
 - observational outline of the survey,
 - preparatory activities enabled by the survey

RFI for Early-Definition Survey

- Community input on the option to pre-select one Astrophysics Survey nominally to be executed within the first two years using up to 1 month of observations
 - In addition to Core Community Surveys
 - Part of General Astrophysics Surveys
- **20 white papers received**
 - Solar system, exoplanets, Milkyway, nearby galaxies, extragalactic (deep field, time domain studies, synergy with Euclid, obscured AGN, cosmic dawn)