D.18 EUCLID GENERAL INVESTIGATOR PROGRAM

NOTICE: Amended April 1, 2024. This amendment releases the final text and due dates for this program element, which was TBD. Mandatory NOIs are due July 15, 2024, and proposals are due August 22, 2024. The Open Science and Data Management Plan is part of the 15-page S/T/M section of the proposal; see Section 2.6. This program will evaluate proposals using dual-anonymous peer review; see Section 2.7. No inclusion plan is requested.

1. Scope of Program

1.1 Overview

The Euclid General Investigator (GI) Program (EGIP) solicits proposals for basic research focused on data from the ESA Euclid mission to which NASA contributed infrared detectors. The primary goal of this mission is to explore the composition and evolution of the dark Universe. This space telescope will map the large-scale structure of the Universe across space and time by observing billions of galaxies out to 10 billion light-years, across more than a third of the sky. Euclid will explore how the Universe has expanded and how structure has formed over cosmic history. It will expand our understanding of the role of gravity and the nature of dark energy and dark matter. Euclid data will also find broad use across a wide range of ancillary science applications. For more information please see https://www.cosmos.esa.int/web/euclid and https://euclid.caltech.edu/ including links to the wide survey and deep-fields pages.

The EGIP solicits research based on the analysis of data from the Euclid mission that is publicly available by the start of the selected project.

The EGIP is intended to encourage broad scientific utilization of the mission by providing funding to carry out investigations using Euclid data, to conduct supporting observations, to develop data analysis techniques applicable to the Euclid data, and to carry out theoretical investigations in support of Euclid observations. Proposals to EGIP will be evaluated using the dual-anonymous peer review process.

Proposers may apply for high-end computing resources. For more information, please see Section 1e of the *ROSES-24 ROSES Summary of Solicitation* and https://www.hec.nasa.gov/request/science.html.

1.2 Eligibility

This program is open to Principal Investigators from a U.S. submitting organization. However, proposals involving U.S. teams proposing bilateral work with the People's Republic of China (PRC) and proposals directly from PRC organizations and/or with a PI affiliated with a PRC organization, are not eligible and will be declined without review. For more information see Section III.c of the *ROSES Summary of Solicitation*.

1.3 Types of Proposals

The Euclid GI Program solicits proposals that include the following areas:

a) The analysis of data from the beginning of science operations or the development of data analysis techniques and tools. Investigators will be required

to make software and other resources supporting such new analysis techniques publicly available.

b) Supporting observations that are directly relevant to the Euclid science objectives and would augment the science return of the mission and the selected investigations. Such investigations must specifically address how the anticipated results will advance Euclid science objectives and/or the broader astrophysics applications of Euclid data.

c) Theoretical investigations that will advance the science return of the Euclid mission. Such investigations must specifically address how the anticipated results will advance Euclid science objectives.

1.4 Exclusions

- Proposals based primarily on the data from other NASA missions such as the James Webb Space Telescope (JWST), Hubble Space Telescope (HST), Chandra X-Ray Observatory (CXO), or Fermi are not eligible for funding. Such proposals are solicited elsewhere and funded under each mission's General Observing (GO) program. However, proposals that involve a combination of data from these observatories, or data from one of these observatories in combination with the data from Euclid, are eligible for funding as long as the focus of the proposal is primarily on Euclid data.
- Investigations whose primary emphasis is fundamental theoretical research or the development of numerical models without specific application to the analysis of Euclid data are not eligible for funding. Such research is supported under NASA's Astrophysics Theory Program (ATP; Program Element D.4, not solicited in ROSES-2024);
- Investigations involving new measurements or calculations of fundamental atomic, molecular, or nuclear parameters are not eligible for funding. Such research is supported under the Laboratory Astrophysics element of NASA's Astrophysics Research and Analysis program (APRA; Program Element D.3);
- Investigations with a primary focus on the analysis of datasets from astrophysics projects or space missions that had no significant NASA contribution (e.g., Hipparcos, *Gaia*, Sloan Digital Sky Survey) are not eligible for funding. Such data may be used to support the analysis of allowed data from the Euclid mission but may not itself be the primary object of the investigation. In any such instance, the onus is on the proposer to clearly establish that analysis of any such data is (1) necessary to the achievement of the scientific goal(s) of the proposed investigation and, (2) not the primary object of that investigation;
- Investigations involving the validation, verification, or characterization of hardware (including detectors) are not eligible for funding. Such work must be proposed under the APRA program (APRA; Program Element D.3);
- Proposals primarily for the general education and/or training of students (note, however, that this does not preclude the involvement of undergraduate or graduate students in the proposed research) are not eligible for funding;
- Proposals for organizing and/or hosting scientific meetings are not eligible for funding. Such activities may be proposed under Topical Workshops, Symposia, and Conferences; or

- Proposals may not request funding for the acquisition of substantial computing facilities or resources beyond nominal workstation or network requests or requests for NASA high-end computing resources.

2. Programmatic Information

2.1 General Information

The table in Section 3 provides the amount of Year-1 funding and the number of investigations expected to be selected for this element.

2.2 Student and Early Career Participation

The participation of students and early-career scientists is strongly encouraged. In such cases, brief details of the educational goals and training of the participants as well as their role in the investigation must be included in the proposal. If present and reviewed favorably (see Section 2.8), this may result in a strength but the absence of students and early-career scientists will not result in a weakness. Please recall this solicitation follows DAPR rules (see Section 2.7), proposers are minded to keep the identity of the early-career scientist anonymous in their description. For further details see Section 2.7.

2.3 Request for Reviewer Names

Proposers are strongly encouraged to provide names and email addresses of up to five experts qualified to review their proposal. These experts must not be from the institutions of the PI or Co-Is or stand to benefit financially from the selection (or otherwise) of the proposal. This information should be included in the program specific data question on the NSPIRES cover pages associated with the mandatory Notice of Intent (NOI) or emailed by the NOI due date to the Program Officer identified in the summary table of key information (Section 3).

2.4 Proposal Submission Requirement: Mandatory NOIs

An NOI is required and must be submitted by the due date given in Tables 2 and 3 of ROSES. Proposals that are not preceded by an on-time NOI will be returned without review. No feedback will be provided in response to the NOI. The summary text submitted with the NOI must be anonymous, following the Dual Anonymous Peer Review (DAPR) rules explained in Section 2.7. Submission of an NOI does not obligate the proposer to submit a full proposal later.

2.4.1 *Changes to the Team After NOI Submission*

After NOI submission, to add funded investigators proposers must inform the Program Officer identified in the summary table of key information (Section 3) and cc sara@nasa.gov at least two weeks in advance of the proposal due date. Additions of funded investigators within two weeks of the proposal deadline require explicit permission from the NASA point of contact.

The PI role may be reassigned between NOI and proposal, but only to Co-Is who were listed on the NOI.

2.5 Clarifications of Proposal Content and Order of Precedence

The instructions in this program element supersede those elsewhere in ROSES and the *NASA Proposer's Guide* (hereinafter "the Guidebook"). For example, the Open Science and Data Management Plan (OSDMP) is to be included in the 15-page Scientific/Technical/ Management (S/T/M) section of the proposal (see below), not in a separate 2-page section as is the default in the *ROSES-24 ROSES Summary of Solicitation* and D.1 the Astrophysics Research Program Overview.

Consistent with the definitions of team member roles in the Guidebook, if unfunded team members (including, but not limited to, those at foreign institutions) are to provide critical portions of the investigation (required in order for it to be successful), then those individuals must be listed as Co-Investigators. However, as another example of how the requirements here supersede the Guidebook, all unfunded Co-Is (not just those affiliated with foreign organizations as is indicated by the Guidebook) must provide a letter from an appropriate representative of their institution or funding Agency attesting to the necessary institutional or other Agency support. Such letters must be included in the "Expertise and Resources Not Anonymized" document (see Section 2.7).

Finally, an example of a default rule that applies to all of ROSES but supersedes the Guidebook is the redaction of salary, fringe and overhead from peer reviewed proposals; see Section IV(b)iii of the *ROSES-24 ROSES Summary of Solicitation*.

2.6 Open Science and Data Management Plan

Proposals to this program must include within the 15-page Scientific, Technical, and Management (S/T/M) section of the proposal an Open Science and Data Management Plan (OSDMP) that addresses how data, software, and publications will be made available. More information on the open science and data management plan is available in Section 1.2 of D.1 The Astrophysics Research Program Overview and at https://science.nasa.gov/researchers/sara/faqs/OSDMP. Placement of the OSDMP within the 15-page S/T/M section it is not standard, so please take note: the OSDMP is required, evaluated as part of merit and failure to include it may result in the proposal being declined as not compliant.

2.7 Specific Instructions for Dual-Anonymous Peer Review Proposals

Proposals submitted to this program will be evaluated using a dual-anonymous peer review (DAPR) process in which not only are proposers unaware of the identity of the reviewers, the reviewers are not told the identity of the proposers until after the evaluation of the aspects of the proposal that don't include the identity of the proposers (see below). The objective of dual-anonymous peer review is to minimize bias in the evaluation of the merit of a proposal.

Since NOI summaries may be shared with reviewers as part of the review assignment process, NOIs must also be anonymized.

Proposers must follow the instructions in the "Guidelines for Anonymous Proposals" document under "Other Documents" on the NSPIRES page for this program element that explains how to properly prepare the proposal for dual-anonymous peer review.

The forms filled out on the NSPIRES web pages with Proposal Summary, Budget, Proposal Team and Program Specific and Business Data known as the NSPIRES "cover pages" will be partly hidden for the peer reviewers. The Proposal Summary must be anonymized but all other sections of the NSPIRES cover page should be completed as normal and NSPIRES will hide the identifying information from the reviewers. The proposal document must be anonymized, and proposers must upload a separate "Expertise and Resources Not Anonymized" document, that contains all of the personally (and organizationally) identifying information.

Review panels will be instructed to evaluate the anonymized proposals without taking into account the qualifications and capabilities of the proposers. After the evaluation of the aspects of the proposal that don't require the identity of the proposers has been finalized for all proposals, panelists will be provided with the "Expertise and Resources Not Anonymized" documents for a subset of proposals that scored highly (depending on the grades and projected selection rates). The panel will then assess the qualifications and capabilities of the team for these proposals and provide comments to NASA.

A summary of the key requirements for anonymized proposals, reproduced from the "Guidelines for Anonymous Proposals" document, is listed below.

Table D.18-1. A summary of the key requirements for anonymized proposals
(reproduced from the "Guidelines for Anonymous Proposals" document).

Item	Requirement
Proposal Document PDF file	In addition to anonymizing the content, ensure that any PDF bookmarks are anonymous and the document properties do not reveal names of author or organization.
Science-Technical-Management (S/T/M) section of proposal	The S/T/M section must be anonymized. Omit all names of team members and names of their organizations.
Open Science and Data Management Plan	OSDMP must be anonymized and included in the 15-page S/T/M section.
References	References must be in the [1], [2] format.
Biographical Sketches	Do not include in main proposal document. Include in separate "Expertise and Resources Not Anonymized" document.
Table of Personnel and Work Effort	Include in an anonymized fashion (e.g., PI; Co-I#1; Co-I#2) in the main proposal document and in non-anonymized fashion in the separate "Expertise and Resources Not Anonymized" document.
Current and Pending Support	Do not include in main proposal document. Include in separate "Expertise and Resources Not Anonymized" document.
Letters or Statements	All Statements of Commitment and Letters of Support, Feasibility or Endorsement are to be included in the separate "Expertise and Resources Not Anonymized" document

Redacted Budget and Narrative	Include both redacted budget and narrative in proposal document in an anonymized format.
Facilities and Equipment	The Facilities and Equipment Section is to be placed only in the separate "Expertise and Resources Not Anonymized" document. However, the S/T/M Section of the anonymized proposal should address the need for and capabilities of facilities and equipment necessary for the proposed research in an anonymized fashion. Any unique/identifying descriptions of facilities and evidence of access to or affiliation with facilities are to be included in the separate "Expertise and Resources Not Anonymized" document.
Separate "Expertise and Resources Not Anonymized" document	Upload as a separate document in NSPIRES. Choose Attachment Type = "Expertise and Resources Not Anonymized". This document provides a list of all team members, their roles, institutional affiliations, expertise, and contributions to the work. The document should also discuss any specific resources that are key to completing the proposed work, as well as a summary of work effort. Statements of Current and Pending Support must also be included.
Total Budget	Upload as a separate document in NSPIRES. Choose Attachment Type = "Total Budget". The mandatory total budget file is full and complete with all costs for those at U.S. organizations, including those at government laboratories. It is not redacted or anonymized.
High-End Computing (HEC) request	Submit optional not-anonymized PDF HEC form as attachment type "Optional HEC request" in NSPIRES. The S/T/M section in the main proposal must state that a HEC request is included and must provide an outline of the computing resources required in an anonymized fashion.

2.8 Evaluation Criteria

All proposals with be evaluated for Intrinsic Merit, Cost, and Relevance, as defined in Appendix D of the *NASA Proposer's Guide* and consistent with Section V(a) of the *ROSES-24 ROSES Summary of Solicitation* and D.1 The Astrophysics Research Program Overview. In addition, the evaluation of Merit will include:

- The degree to which the proposed investigation provides information needed to qualify the Euclid mission's ability to meet its science goals,
- If applicable, see Section 2.2, the degree to which it advances the readiness of early-career researchers or graduate students to assume roles in advancing NASA's strategic objectives, and
- The proposed investigation's Open Science and Data Management Plan as described in Section 2.6.

3. Summary of Key Information

Expected program budget for first year of new awards	$4 M
Number of new awards pending adequate proposals of merit	10-15
Maximum duration of awards	3 years
Due date for Mandatory Notice of Intent to propose (NOI)	See Tables 2 and 3 of this ROSES NRA.
Due date for proposals	See Tables 2 and 3 of this ROSES NRA.
Planning date for start of investigation	Typically, January of 2025, but anytime between January 2025 and late March 2025.
Page limit for the Anonymized central Science-Technical-Management section of proposal	15 pages including the OSDMP.
Relevance	This program is relevant to the Astrophysics questions and goals in the NASA Science Plan. Proposals that are relevant to this program are, by definition, relevant to NASA.
General information and overview of this solicitation	See the *ROSES-24 ROSES Summary of Solicitation*.
General requirements for content of proposals	See D.1 The Astrophysics Research Program Overview and Table 1 of *ROSES-2024*.
Detailed instructions for the submission of proposals	See NSPIRES Online Help, Sections 3.22-4.4 of the *Proposer's Guide* and Section IV(b) of *the ROSES Summary of Solicitation*.
Submission medium	Electronic proposal submission is required; no hard copy is permitted.
Web site for submission of proposals via NSPIRES	https://nspires.nasaprs.com/ (help desk available at nspires-help@nasaprs.com or (202) 479-9376)
Web site for submission of proposals via Grants.gov	https://grants.gov/ (help desk available at support@grants.gov or (800) 518-4726)
Funding opportunity number for downloading an application package from Grants.gov	NNH24ZDA001N-EGIP
Main point of contact concerning this program	Doris Daou Astrophysics Division Science Mission Directorate NASA Headquarters Washington, DC 20546-0001 Email: Doris.Daou@nasa.gov