The Eric and Wendy Schmidt Observatory System

FirstLight Awards

Call for Proposals

FirstLight Awards

Program Overview

The FirstLight Awards program invites proposals from early-career researchers around the world who will lead bold, open, and collaborative science using the Eric and Wendy Schmidt Observatory System. FirstLight is designed to support a new generation of scientists to become expert users of this network of resources and to maximize its scientific output and excellence.

Schmidt Sciences is supporting a collection of ground and space-based observatories (Argus, DSA, Lazuli, and potentially others) that will expand our ability to observe the universe across wavelengths and modalities. Through FirstLight, we aim to complement the technologies of the emerging Schmidt Observatory System by investing in people - supporting research teams that will conduct visionary science, build open-source infrastructure, and engage the global community in advancing discovery.

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Program Vision and Goals

The FirstLight Awards will:

Support early-career researchers in making groundbreaking discoveries centered on major astronomical research observatories, including the Schmidt Observatory System, guided by open-science principles.

Facilitate global community engagement to ensure broad, inclusive participation in shaping the scientific future of this system.

Build an agile network of users prepared to integrate rapidly evolving technologies—including AI, large-scale data systems, and open workflows—into astrophysics.

Who Can Apply

Eligibility Overview [1]

Applicants must:

- Be early-career researchers who have completed their terminal doctoral degree (e.g., PhD or equivalent) within ten (10) years of the application deadline.
    - Individuals whose doctoral degree was conferred more than ten (10) years prior to the application deadline may be considered for an exception on a case-by-case basis if they provide a clear, well-documented justification for career interruptions or non-linear career paths (including, but not limited to, caregiving responsibilities, medical leave, military service, or other significant professional or personal circumstances). The funding organization reserves sole discretion in determining eligibility under this exception..
- Have institutional stability and a commitment to remain at the same host institution for the full five-year duration of the award.
- Be affiliated with a scientific research institution worldwide, including universities and the international equivalents of 501[c](3) nonprofit scientific research organizations
- Have institutional support to manage and host the FirstLight Awards grant.

Each application may include up to two additional funded co-PIs.

Eligibility Details
The FirstLight Awards welcome proposals from early-career principal investigators, most commonly those holding positions such as assistant professor or equivalent. We will also consider research scientists, staff astronomers, or others in comparable roles who can demonstrate institutional stability and provide a compelling rationale for their early-career status. Postdoctoral researchers are not eligible to serve as PIs but may apply before moving to an eligible position if an offer for a role with institutional stability is in hand at the time of the application deadline.

[1] All selections will be made on a non-discriminatory basis. Employees and directors of Schmidt Sciences are not eligible to apply.

Award Structure & Expectations

Each selected FirstLight PI will receive *up to* USD $500,000 per year for up to five years to support a research group. Teams may include postdoctoral fellows, students, engineers, software developers, or other roles necessary to achieve their scientific goals. Groups may be small or large, depending on how they choose to structure and allocate their funding. FirstLight encourages creative and non-traditional thinking on what constitutes an astrophysics research group in the current landscape. Note that time allocation on the Schmidt Observatory System is a separate process that has not yet been initiated.

Awardees will:

- Advance high-impact astrophysics research leveraging the Schmidt Observatory System and complementary facilities as "super-users".
- Develop and contribute to open-source software, data tools, and community infrastructure within the Schmidt Observatory System.
- Participate actively in the Schmidt Observatory science community, including attending an annual all-hands convening, and helping to organize up to two domain-specific meetings/workshops over the five year award duration
- Engage in public communication, workshops, and training activities to broaden access and participation in the Schmidt Observatory System as global ambassadors.
- Collaborate with Schmidt Sciences to optimize observatory readiness and coordinate community needs.
- Engage with the Schmidt Sciences Astrophysics Center to report periodic progress and address arising needs.
- Comply with all legal terms and conditions set forth in a written grant agreement governing the fellowship, including providing annual written reports on their use of awarded funding

Postdocs and students selected into the group by the PI will form the nucleus of a new generation of open-science leaders. They will be considered the equivalent of prize fellows and named FirstLight Fellows.

Awards will be made on an annual basis, contingent on progress against milestones based on each research group's proposed work.

Scientific Scope and Themes

Proposals should be broad, bold, and achievable with new ground-based photometric surveys, radio surveys, and high-resolution optical/NIR spectroscopy, in addition to existing space- and ground-based facilities. All facilities in the Schmidt Observatory System are described in more detail on the Schmidt Sciences website; additional technical information will be shared with shortlisted candidates during the selection process. Proposals may span observational, theoretical, or computational domains, including (but not limited to) cosmology, exoplanets, TDAMM, galaxies, stars, and the solar system.

Selection Criteria

We are seeking individuals with a demonstrated record of scientific discovery through both first-author and collaborative peer-reviewed publications, ambitious ideas that challenge conventional boundaries, and evidence of empowering junior researchers as co-authors and scientific contributors. Accordingly, proposals will be evaluated based on:

- **Research Record and Impact** – demonstrated scientific contributions and trajectory, including lead-author and collaborative outputs, and evidence of successful execution of prior work.
- **Scientific Vision** – originality, ambition, and clarity of the proposed scientific goals.
- **Technical Proficiency** – demonstrated capability in the observational, computational, and/or software-development approaches relevant to the proposed work; deep expertise is encouraged but not required.
- **Observatory Leverage** – clear scientific rationale for the use of specific observational resources, including the importance of multi-observatory access and/or cross-facility coordination where relevant. Proposals that focus deeply on a single facility are equally appropriate when scientifically well motivated. Applicants should articulate how the proposed program benefits from access to the Schmidt Observatory System in combination with other resources, or through unique and focused use of a specific facility.
- **Agility and Innovation** – ability to adopt, develop, or integrate new tools, capabilities, or techniques, and to operate effectively within an open, adaptive network aligned with FirstLight's goals.
- **Community and Mentoring Engagement** – demonstrated commitment to collaboration, mentorship, and inclusive research practices, including evidence of enabling contributions by junior researchers.

Selection will be based on the recommendations of an external expert review committee, who will evaluate the written proposals (detailed here) and conduct virtual interviews with shortlisted candidates. The Schmidt Sciences team will be available for offline communication and clarification, as needed.

How to Apply

Applications must be submitted through the submission portal by **5:00pm Eastern on Friday, April 17th, 2026**. Candidates will not be able to access the portal until after they have registered for virtual office hours.

An application template will be provided to all candidates who have registered for virtual office hours (LaTeX and Word); components should be uploaded to the submission portal in PDF format.

Click here to register for our mandatory virtual information session

Required components:

Cover Letter (1 page)

Please address the following topics:

- Academic background: Year of PhD, current and past positions (including the host institution), and primary area(s) of research within astrophysics.
    - Applicants must be early-career researchers who have received their terminal doctoral degree (e.g., PhD or equivalent) within ten (10) years of the application deadline. If you are seeking an exception to this eligibility requirement, please provide a justification here. Exceptions may be considered on a case-by-case basis, and the funding organization reserves sole discretion in determining eligibility under this exception.
- Research trajectory: Description of previous and ongoing work, highlighting how it has laid the foundation for the proposed efforts outlined in your research statement. Consider the following guidelines:
    - How does the proposed program build on, extend, or synthesize earlier results, methods, or conceptual frameworks? Describe how insights from previous studies motivate the scientific questions, observational strategies, and/or theoretical/computational approaches that would be pursued.
- Schmidt Observatory System: Statement of how the Schmidt Observatory System makes your research feasible, alongside other existing and planned astrophysics resources.

Research Statement (5 pages, including figures)

- Please describe your previous work and your scientific goals for the next five years, centered on the Schmidt Observatory System. The purpose of this statement is to assess not only scientific merit, but whether your research requires – and is fundamentally shaped by – the Schmidt Observatories as a coordinated system.

Your statement should address the following:

- Scientific Vision and Big Questions: What are the core scientific questions you aim to answer? What are the anticipated major results of this work, and why do they matter for astronomy and astrophysics (e.g., paradigm shifts, new constraints, new populations, new physical understanding)?
- Why the Schmidt Observatory System is Essential: Explain why the Schmidt Observatory System represents a special scientific opportunity for your research.
    - Why can these questions not be addressed in the same way using other existing or forthcoming facilities?
    - What specific capabilities of the Schmidt Observatories (e.g., cadence, scale, wavelength coverage, simultaneity, openness, software ecosystem) are necessary, not merely advantageous?
    - How does access to coordinated, open, multi-wavelength data change your analysis strategy or theoretical framing?
- Role of Individual Observatories: Explicitly describe how your work leverages one or more of the Schmidt Observatories and what it contributes to your research goals:
    - Argus (all visible sky, high-cadence optical imaging in the Northern Hemisphere)
    - DSA (radio surveys and targeted observations)
    - Lazuli (space-based optical/NIR photometry, spectroscopy, and optical coronagraphy)
    - Other currently operating and planned facilities that are critical to your efforts (e.g., medium–to-high resolution optical-to-near-IR spectroscopy on a 3m telescope)

**The Research Statement must be written in an anonymized format to minimize bias, following community best practices, such that the applicant's identity and institutional affiliation cannot be inferred. Applicants should avoid first-person references that identify them as an individual researcher (e.g., "I," "my lab," "we at X University") and instead use neutral phrasing such as "this work" or "the research program," and must not name institutions, advisors, collaborators, funding sources, or include acknowledgments or biographical details. Prior work, including the applicant's own publications, should be cited in the third person and formatted identically to any other reference, avoiding language that implies authorship or ownership. References to observational facilities, archives, or surveys should be limited to a general level: public, widely accessible resources may be mentioned, but statements implying proprietary access, awarded observing time, leadership roles, or the use of exclusive or uniquely identifying datasets or projects must be avoided. Applicants should take care that descriptions of data, software, field sites, or ongoing work do not indirectly reveal identity, ensure that document metadata and file names contain no identifying information, and reread the statement from the perspective of an external reviewer to confirm that no indirect indicators of authorship remain. This is the only component of the application that will be reviewed anonymously.*

Community Statement (1-2 pages total)

The FirstLight Awards program values community contributions that accelerate scientific readiness for the Schmidt Observatory System, including shared tools, workflows, and practices that enable broad, effective use of its data and infrastructure. In this statement, applicants should describe **their own contributions and plans** and how these efforts support a high-performing, open astronomical community. Please address the following:

- **Community Contributions** – Describe current and/or planned contributions beyond traditional research outputs that support the adoption, effective use, or extension of Schmidt Observatory System data, software, or workflows (e.g., open-source tools, analysis pipelines, documentation, training resources, workshops, or community standards). Where relevant, describe how these contributions are maintained, shared, or scaled.
- **Community Engagement and Reach** – Explain how you engage, or plan to engage, the broader astronomical community—including researchers outside your immediate subfield—in making effective use of Schmidt Observatory System data and infrastructure. This may include mechanisms for training, collaboration, knowledge transfer, or lowering barriers to entry.
- **High-Performance Research Practice** – Describe how your research group or collaboration operates, or is intended to operate, in the context of large, open, data-intensive observatories. Identify key roles, practices, and skill sets (e.g., research software engineers, data scientists, students) that enable high performance, and explain how these capabilities are developed, supported, and sustained within your program.
- **Sustaining Excellence at Scale** — How do you plan to structure, manage, and support your research group to sustain scientific and technical excellence over long timescales, particularly in the context of large-scale projects with aggressive timelines and evolving requirements?

Abridged Academic Curriculum Vitae (2 pages)

The abridged CV should highlight education, appointments, research interests, and other accomplishments most relevant to the applicant's current career stage and the goals of the FirstLight Awards. Please include the following sections:

- ***Header***
  - *Name*
  - *Current position and institution*
  - *Contact info (email)*
- ***Education***
  - *PhD (year, field, institution, advisor)*
  - *Earlier degrees*
- ***Academic & Research Appointments***
  - *Current and past positions (with dates)*

    - *Include any postdocs, fellowships, faculty roles, research scientist positions*
- ***Grants, Fellowships, & Awards***
    - *Major competitive funding and honors*
    - *Include proposals for observing and compute time, archival research, and theoretical work*
- ***Invited Talks & Colloquia***
    - *Selected only (not full conference list)*
- ***Mentoring & Supervision***
    - *Graduate students, postdocs, undergraduates, post-baccalaureate researchers, high school students etc.*
- ***Service & Leadership***
    - *Committees, collaborations, review panels*
- *(Optional)* ***Selected Synergistic Activities***
    - *Selected leadership, teaching, and service activities that reflect broader professional impact*

Publications

Applicants must submit a Narrative Bibliography consisting of two parts, presented in order.

Part I: Narrative Highlights
Applicants should identify up to five (5) lead-author and/or co-authored publications that are most relevant to the proposed research. For each selected publication, include a concise narrative of <100 words that addresses both the primary scientific questions, conclusions, and impact of the work and the applicant's specific intellectual and practical contributions. Narratives should clearly describe the applicant's role in the research, including (where applicable) leadership in conceptual development, analysis, methodology, software or data products, coordination of collaborative efforts, and mentorship of junior contributors.

Part II: Full Publication Record
Provide a complete list of peer-reviewed publications, preprints, and other significant scholarly outputs. The publications discussed in Part I must be clearly identified within the full publication record (e.g., by bold text or an asterisk).

Together, these two parts should present a coherent and interpretable picture of the applicant's scientific contributions, role within collaborations, and overall publication trajectory, emphasizing depth of contribution alongside breadth of output.

Estimated Group Budget

Please provide an annual budget estimate for your research group, *consistent with the framework described in the community statement (up to USD $500k per year for five years, contingent on satisfactory annual reports). Budget line items that are not applicable to your host institution (e.g.,*

tuition remission) should be marked as "N/A." The proposed budget should be reviewed for accuracy by the grants management or sponsored projects office at the host institution.

- Include a detailed cost breakdown for the first year of support
- Applicants are encouraged to explain roles that support advanced data analysis, software development, or cross-observatory integration (e.g., postdocs, graduate students, research software engineers), including non-traditional skills deemed valuable to the research group.
- Include an estimate of the budget for the full term of application (up to 5 years), capturing how you expect the group to change over time as you capitalize on scientific opportunities

Letter of Institutional Support (2 pages)

A signed letter from an authorized representative of the applicant's current (or anticipated) host institution (e.g., department chair, dean, or equivalent). The letter should confirm:

- The institution's support for the applicant's submission to the FirstLight Awards;
- The applicant's appointment status and eligibility to remain at the host institution for the full five-year duration of the award; and
- The institution's ability and willingness to administer and host the FirstLight Awards grant, including provision of appropriate research space, infrastructure, and administrative support, as applicable.

The letter should not exceed two (2) pages and should focus on institutional commitment and capacity rather than an evaluation of the applicant's scientific merit.

Recommendation Letters

FirstLight will only request recommendation letters for candidates who progress beyond the initial review stage. Applicants can inform their letter writers to expect a confidential request from the program around early to mid-May; applicants themselves will not be contacted at this time. Please provide the following information in the application submission form:

- **Name, institution, and email address of one senior scientific collaborator**, who can speak to the applicant's originality and intellectual curiosity, technical breadth, and ability to conceive and execute ambitious scientific programs; their effectiveness in collaborative, interdisciplinary, and rapidly evolving research environments; and their ability or potential to lead high-performing research groups and carry out the projects proposed in the research statement.
- **Name, institution, and email address of one mentee** (supervised by the applicant, or even a peer whose research the applicant has informally mentored).
  The following questions will be provided to the mentees/peer mentors:

- Please answer the following questions to tell us about your direct experience with your mentor or peer mentor. The questions will focus on teaching and/or mentorship; there is no need to comment on their professional qualifications. Long-form responses should be between 100-250 words. We expect that the form should take ~1 hour or less to complete.
- In what capacity do you know your mentor or peer mentor (select all that apply), and how long have you worked with them? For example: enrolled in classes taught (or TA'd) by the applicant, worked with them as a student researcher or postdoc, supported each other as peer mentors, and other capacities.
- Please tell us about any of the following experiences with your mentor, and what made them effective: courses taken (or supported as a Teaching Assistant), research experience, professional guidance (e.g., job applications, networking, etc.), other professional support
  You can highlight any specific examples of teaching styles, ways to provide and receive feedback and information, team or classroom building activities, etc.
- How has your mentor influenced your academic, professional, or personal growth? Please tell us about any skills you developed and/or opportunities that were unlocked due to their support.
- Do you feel that your mentor enables you to take ownership of your work? Please tell us about your role within the larger research group, network of collaborators, or department as a whole.
- What is your overall rating of the applicant as a research mentor and/or teacher? (1-5 stars)