**Template for NASA Keck Science Program**

Include a short title and the semester in the header.

Do NOT include your name.

*[The first 2 pages of this template contain general information and instructions; please remove them before submitting your proposal]*

The NASA Keck proposal review uses a Dual Anonymous Proposal Review (DAPR) process. We have prepared [Proposer Guidelines](https://nexsci.caltech.edu/missions/KeckSolicitation/DAPR_proposer.shtml) to assist with the preparation of your anonymous proposal. This template is for the Science Program that is part of each NASA Keck proposal. It includes the anonymized information for your proposal. **Use of this template is required.**

In addition to this anonymously written Science Program, each proposal must also include a non-anonymized Expertise and Access (E&A) document prepared using this template available in [Word](https://nexsci.caltech.edu/missions/KeckSolicitation/EA_template.docx) or [Latex](https://nexsci.caltech.edu/missions/KeckSolicitation/EA_template.tex). Further information on both the E&A document and the Science Program document can be found in the [Call for Proposals](https://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml).

Email us at keckcfp@ipac.caltech.edu with any questions.

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| **\*\* SCIENCE PROGRAM PAGE LIMITS \*\*** |
| 1. Science Case
 | up to 2 pages  |
| 1. Mission Support Justification
 | up to ½ page  |
| 1. Instrument Request
 | up to 1 page  |
| 1. Figures and Tables
 | up to 1 page |
| 1. References
 | up to 1 page |
| **Total for Science Plan** | **Up to 5½** **pages**  |
| 1. Target list
 | No limit |
| * The NExScI cover sheet is generated via the submission website and includes fields for a title, PI and co-I names, abstract, NASA strategic relevance, and the Keck Observatory Archive data check. These should not be repeated in the proposal text.
* The WMKO cover sheet is generated through the [WMKO Observer Login Page](https://www2.keck.hawaii.edu/inst/PILogin/login.php). The WMKO proposal number should indicate the correct semester and start with an “N”, indicating NASA as the allocating institution. You must upload a PDF of this cover sheet when you submit your proposal.

The NExScI and WMKO coversheets do not count against the above page limits.  |

* This template is intended to outline the Science Program for a typical NASA Keck proposal. Section heading titles can make the proposal easier to read but are not required. Multiple sections can be put onto the same page, however shortening one section does not mean you can increase the page limit of another.
* Proposals must use 12-point font with 1-inch margins on all sides. Do not change the default font in this template since other fonts have different character spacing that can affect readability.
* Once your proposal is complete, use the [online submission portal](https://catcopy.ipac.caltech.edu/nasakeck/proposal.php) to submit the following PDF documents:
	+ [Anonymized Science Program](https://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#Ibi)
	+ [Non-anonymized Expertise and Access document](https://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#Ibii)
	+ WMKO coversheet
* Following submission, you will receive a confirmation email with both the anonymized Science Program and the non-anonymized E&A document attached as PDFs. If you do not receive this confirmation email, please contact us at keckcfp@ipac.caltech.edu

**1 Science Case (up to 2 pages)**

Remember that all text in this template must conform to [DAPR](https://nexsci.caltech.edu/missions/KeckSolicitation/DAPR_proposer.shtml). Do not include an abstract or title here since these are captured in the coversheet upon proposal submission.

Specific points that should be addressed in the Science Case are detailed in the [Call for Proposals](http://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#Ibi). This section should demonstrate how the proposed science fits into [NASA’s strategic use of Keck time](http://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#Ia).

**2 Mission Support Justification (up to ½ page)**

If you are submitting your proposal as a Mission Support proposal, use this section to demonstrate that the proposed observations provide critical and timely support for confirmed and operating NASA space missions. In this case, "critical" refers to NASA Keck data meeting one or more of the criteria described in [Section IIb of the Call for Proposals](https://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#IIb).

# 3 Instrument Request/Technical Justification (up to 1 page)

This section should contain details of your planned observations, descriptions of scheduling constraints, and data analysis plans. Specific points that should be addressed in this section are described in the [Call for Proposals](http://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#Ibi) and include which portion of the night you are requesting if requesting partial nights.

# 4 Figures, Tables (up to 1 page)

Figures and tables can be embedded within the narrative text or presented separately, but must not total more than one page of space. Captions may be in 10-point font.

# 5 References (up to 1 page)

References may be in 10-point font and should be formatted using the author’s last name and year of the cited publication, e.g. (Smith, 2015) (Smith & Smith, 2015) or (Smith et al., 2015).

Do not include references and links to papers in preparation or submitted that are stored on personal web pages. References to submitted papers on public archives (e.g., arXiv) are acceptable.

Note: The E&A document has a section for references that are specific to the E&A document and those should not be included in this anonymized Science Plan.

# 7 Target List (no page limit)

All proposals must include a complete, well-justified and, if appropriate, prioritized [target list](https://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#Ibi) with sufficient information (magnitudes, coordinates) to determine scheduling within the semester, including which part of the night is requested if asking for less than full nights. *Proposals without such lists will be rejected.*

In the case of Targets of Opportunity or sources drawn from on-going surveys or very large samples of sources (e.g. from deep extragalactic fields), a description of the potential targets must be provided in sufficient detail for the Telescope Allocation Committee (TAC) to make a thorough review.