

# Call for to the Astronomy and Astrophysics Community for Activity, Project, and Statement of the Profession Consideration (APC) White Papers

Submit in PDF via the web form that will be linked to [www.nas.edu/astro2020](http://www.nas.edu/astro2020)

Submissions must be made between 12:01pm EDT Tuesday, June 4, 2019, and 5:00pm EDT Wednesday, July 10, 2019.

## Introduction

The Astro 2020 Decadal Survey requests that teams that would like to have an activity, project, or state of the profession consideration evaluated by the Survey submit a 5 - 10 page document that includes the information described below, under Submission Content. The responses to this call for white papers will be used by the Program or State of the Profession panels to make an evaluation of the activity for possible inclusion in the findings and recommendations of the Survey. Activities and projects for which a Technical, Risk, and Cost Evaluation (TRACE) is deemed desirable and necessary will be asked to submit additional, more detailed information at a later stage in the process. Small scale pursuits, or those in a very early concept phase should prepare their responses so that they contain all necessary information for the activity to be evaluated, as for these activities the APC white papers will be the primary source of information for the Survey.

Note: Prior submission of a Notice of Intent (NOI) is not required for submission of an APC white paper.

## Responding to the RFI

The Decadal Survey asks that responses to this call for APC white papers be submitted no later than 5:00 PM, EDT, on Wednesday, July 10, 2019. Submissions should be made via the link on the Astro2020 webpage beginning on June 4, 2019. Please note that all submitted white papers will be made public and will, if so requested, be published by the Bulletin of the American Astronomical Society (BAAS). The submission form on the webpage will have fields for additional information such as a brief description and co-author information that will not count towards the page limit.

Due to the large anticipated number of APC white papers to be considered by the Survey, submitters should abide by the following formatting guidelines:

- APC white papers must be no more than 10 pages in length, including all figures, tables, and appendices. References and the author list do not count against the page limit. Web links to other documents may be included in the body of the paper.
- A cover page should be included (not included in the page limit) with the title of the white paper, the thematic activity/project/state of the profession consideration area(s), and a list of authors, plus contact information for the lead author.
- Papers must be single spaced, and use a 12-point font with 1-inch margins on all sides of the document.

- Only Adobe Acrobat (.pdf) format will be accepted.

### **Submission Content: Activities and Projects**

Activity and Project white papers should contain the following information:

Key Science Goals and Objectives: The papers should summarize the most important scientific goals and objectives, justifying the timeliness of the scientific opportunities, and placing them in as broad a context as possible. We encourage the authors, where relevant, to reference Science White Papers submitted to the Survey (these are posted on the Astro2020 website, and may be referenced by author and title). Submitters may also make reference to web sites and other outside materials, but should strive to make this section as self-contained as possible.

Technical Overview: The team should provide a description of the technical aspects of the pursuit, including a description of the essential performance parameters for achieving the project's science goals.

- For space missions, key observables and instrument and spacecraft performance requirements should be included. The papers should describe the mission architecture and technical resources and margins (e.g. for mass, power, data volume), as well as the anticipated launch requirements, and launch vehicle (if known).
- For ground-based activities/projects, papers should describe the telescope or observatory architecture, key performance requirements, technical requirements, anticipated site and infrastructure requirements, as well as any public/private partnerships.
- For activities/projects primarily involving computing, theory, or laboratory astrophysics, the required facilities and technical support structures should be outlined.

Technology Drivers: If the pursuit requires new technologies, the paper should identify and describe them, along with an outline of technology maturation plans and timescales.

Organization, Partnerships, and Current Status: All pursuits should describe the participating organizations, any planned partnerships, and their current status.

Schedule: The team should outline the development and operations schedule. The schedule should also indicate the operational lifetime of the pursuit.

Cost Estimates: The team should provide any cost estimates that have been developed for the current version of the pursuit. This should include the date the cost estimate was performed, should reference the base fiscal year, the organization that performed the estimate, and the top level results of the estimate, broken out by the major development and operational phases. Operating costs should be divided into direct funding to the science community (if planned) and costs required to keep facilities, missions, or other necessary infrastructure running. Any unusual end-of-life (e.g. decommissioning) costs should be noted. Also, if applicable, a breakdown of the assumed funding from federal, other public, international, or private sources should be provided. Specific sources of funding need not be identified.

MODIFICATION: The team should provide completed cost estimates if available. If costs are still being developed and validated, or the breakdown of funding is yet to be determined, the project should provide the cost category for the overall project, including science and operations. The categories are:

Space

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Small	<\$500M
Medium	\$500M - 1.5B
Large	>\$1.5B

Ground

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Small	<\$20M
Medium	\$20M - 70M
Large	>\$70M

### **Submission Content: State of the Profession Considerations**

State of the Profession white papers should contain the following information:

Key Issue and Overview of Impact on the Field: The team should provide a summary of the issue, describe how it impacts the field of astronomy and astrophysics, and explain why it should be addressed in the Survey. Submitters may make reference to web links and other outside materials, but should strive to make this section as self-contained as possible.

Strategic Plan: The team should describe the strategy and approach for addressing the issue, providing as much specificity as possible on the methodology, process, and goals.

Organization, Partnerships, and Current Status (if applicable): All pursuits should include, if possible, a description of the organization that will implement the required actions, any planned partnerships, and the current status of any ongoing activities.

Schedule (if applicable): The team should provide a development and operations schedule. The schedule should indicate the duration or operational lifetime of the effort.

Cost Estimates (if applicable): The team should provide a list of any cost estimates that have been developed for the current version of the pursuit, along with the fiscal year basis of the estimate. The list should include the date the cost estimate was delivered, the organization that performed the estimate, and the top level results of the estimate, broken out by the major phases, plus an estimate of operating costs. If applicable, a breakdown of the assumed funding from federal, other public, international, or private sources should be provided. Specific sources of funding need not be identified.

Thank you for your time in responding to this call for APC white papers. If you have any questions, please send them to [astro2020@nas.edu](mailto:astro2020@nas.edu).