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Call for White Papers

Issued by
The Committee on an Exoplanet Science Strategy

Dear Colleagues,

In preparation for and as an input to the upcoming decadal surveys in astronomy and astrophysics and planetary science, the National Academies of Sciences, Engineering, and Medicine has been charged with carrying out a study on the science strategy for field of extrasolar planets. The committee's [Statement of Task](#) involves surveying the status of the field, recommending a future science strategy, discussing ways in which the key goals identified by the committee can be addressed by current priorities and activities, and identifying possible opportunities for coordination with international, commercial, and non-for-profit partners. The committee will regularly consult with the concurrent study on the "State of the Science of Astrobiology."

The committee is requesting community input on these topics in the form of white papers. Please find below recommended topics for white papers and submission guidelines. White papers will be accepted from now until March 9, 2018.

Please note that multiple authorship accurately reflecting a consensus among many individuals is strongly encouraged. Everyone in the research communities associated with exoplanets, astrobiology, and related fields is encouraged to author or collaborate on these papers.

Note that the committee will also consider reports from the Program Analysis (PAG) study groups, so these need not be re-submitted as white papers, although any important and relevant updates to these reports are encouraged.

Recommended Topics for White Papers

The following topics, derived from the study's Statement of Task, are suggested. White papers should not revisit or attempt to redefine the scientific priorities or mission recommendations from previous decadal surveys or strategies:

- Identify areas of significant scientific progress since publication of the New Worlds New Horizons Decadal Survey.
- Identify exoplanet science areas where significant progress will likely be made with current and upcoming observational facilities, such as the Transiting Exoplanet

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Survey Satellite, the James Webb Space Telescope, the Wide Field InfraRed Survey Telescope, and other ground- and space-based facilities.

- Identify exoplanet science areas and key questions that will likely remain after these current and planned missions are completed.
- Identify key observational, technological, theoretical, and computational challenges for making progress in further understanding exoplanets and exoplanetary systems.
- Identify the opportunities and obstacles that need to be overcome to make medium-to-long-term progress in key observational, technological, and theoretical areas. Identify the resources that are required to make progress in these areas, and the timescale on which this progress is likely to be made.
- Discuss how to develop and expand partnerships (interagency, international and public/private) in furthering understanding of the nature, formation, and evolution of exoplanets and exoplanetary systems.
- Identify likely fruitful cross-disciplinary topics and initiatives that will enable and accelerate progress in these future areas of exoplanet inquiry, including but not limited to: protoplanetary and debris disk science, stellar astrophysics, planetary science, and astrobiology.

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Guidelines for White Paper Format and Submission

To facilitate document management, please follow these guidelines:

- White papers may not exceed 5 pages in length. This includes all figures, tables, references, and appendices. Web links to other documents may be included in the references.
- Documents should be single spaced, use 12-pt font, and have 1-inch margins on all sides.
- A cover page may be included and will *not* count toward the 5-page limit. It should state the title of the white paper, the primary author's name, phone number, institution, and email address, and a list of co-authors with their respective institutions.
- The permission of each co-author must be explicitly given prior to submission
- Only papers in .pdf format will be accepted.
- File sizes should be made as small as possible. White papers larger than 10 Mb in size cannot be accepted. For file management purposes, please compress figures as much as possible. Hyperlinks to higher resolution versions of illustrations are permissible.
- Appendices may contain license or policy examples or other supporting, pre-existing documents, but not further text or other material created for the paper.
- Given that the committee will be composed of experts in a broad range of exoplanet areas, background or introductory material is generally not expected or desired.

Please respect that the committee has a short time to evaluate a potentially large number of white papers. A well argued, concise paper will make the strongest impression. Use specific examples from your own experience, cite specific policies that impact you, use numbers, etc., wherever possible.

White papers must be submitted through the online link located at http://sites.nationalacademies.org/SSB/CurrentProjects/SSB_180659. Only white papers submitted by means of this system will be accepted. Submissions must be made before 11:59:59 EST, March 9, 2018. Questions on the process can be submitted to exoplanets@nas.edu. Any white papers submitted to that email address will be returned with directions to the website. All white papers will be made publicly available and posted to the committee's website per federal regulations.