National Aeronautics and Space Administration

Headquarters Washington, DC 20546-0001



September 27, 2023

Reply to Attn of: SMD/ Astrophysics Division

SUBJECT: CALL FOR NOMINATIONS TO THE EXECUTIVE COMMITTEE OF THE PHYSICS OF THE COSMOS PROGRAM ANALYSIS GROUP (PHYSPAG)

Dear Colleagues:

The Astrophysics Division of NASA's Science Mission Directorate is pleased to issue this open call for nominations, including self-nominations, to serve on the Executive Committee of NASA's Physics of the Cosmos Program Analysis Group, or PhysPAG (<u>http://pcos.gsfc.nasa.gov/physpag/</u>). In the coming months, NASA anticipates making multiple new appointments to the PhysPAG Executive Committee (EC) in order to replace several current members who will be rotating off the committee. Appointments will be for a nominal period of three calendar years for each selected candidate.

The Physics of the Cosmos (PhysCOS) Program is one of the three thematic programs that encompass NASA Astrophysics. PhysCOS seeks to answer the enduring question "How does our Universe work?". The other two thematic programs, Exoplanet Exploration (ExEP) and Cosmic Origins (COR) seek to answer the questions "Are we alone?" and "How did we get here?", respectively.

The PhysPAG is an open, interdisciplinary forum that provides a conduit for community input into NASA's PhysCOS Program. The PhysPAG conducts analyses in support of science objectives and their implications for planning and prioritization of Program activities. The PhysPAG is led by an Executive Committee whose membership is chosen to reflect the broad range of scientific disciplines and interests represented in PhysCOS. As a member of the PhysPAG EC, you will provide NASA with expert analysis of the science and/or technology gaps and offer analysis of solutions on how these gaps may be closed to realize the vision for our desired understanding of the cosmos. Members of the PhysPAG EC are expected to be active participants at regular meetings. EC members may be asked to report on various community activities or interactions and are expected to communicate relevant PhysPAG information with their home institutions and colleagues in the field on a regular basis. Serving on the PhysPAG EC requires a time commitment of order 10 hours per month.

With the implementations by NASA of the strong recommendations of the Astro2020 Decadal Survey in the area of PhysCOS science well underway, it is more important than ever to maintain

a strong connection between NASA and the astrophysics community to ensure ongoing meaningful community input. Since the release of Astro2020, a new Science Interest Group (SIG) has been formed to address PhysCOS science relevant to one of the top priorities of Astro2020: the Time-Domain and Multi-Messenger Astrophysics SIG. Under discussion is a new SIG to explore the science potential of the Habitable Worlds Observatory (HWO) flagship mission, NASA's top recommendation from Astro2020. Both the TDAMM SIG and the evolving HWO SIG have scope and membership that crosses all three PAGs and we expect they will be a major focus of the new PhysPAG EC.

In the past year, the PhysPAG EC has overseen a study by a Science Analysis Group (SAG) to help NASA identify the role and future of Gamma-Ray Transient Networks, culminating in a report delivered to NASA Headquarters in Fall '23. NASA will be seeking advice from its advisory committees to help respond to the findings in this report. The PhysPAG EC is shepherding a SAG on the future of Space Communications in the waning years of the Tracking and Data Relay Satellite System (TDRSS) constellation, and is contributing to two SAGs that cross the PAGs on the topics of (i) Overcoming Obstacles to Achieving Diversity in NASA Astrophysics and (ii) Future Great Observatories. Additional Astro2020-relevant SAGs under discussion include Gamma-Ray and Cosmic-Ray science roadmaps, initiated within the Gamma-ray and Cosmic-ray SIGs, respectively. The X-ray, Gravitational-Wave, Cosmic Structure, and Inflation-Probe SIGs have also been active in helping NASA respond to Astro2020 by engaging their communities in special sessions at national conferences and dedicated virtual meetings.

Serving on the PhysPAG EC offers excellent career growth for all members of the PhysCOS community, regardless of career stage. EC members gain tremendous insight into the workings of NASA, as well as the opportunity to expand their professional networks as recognized leaders of the PhysCOS community.

Nominations, including self-nominations, for the PhysPAG EC should be submitted via email to <u>PhysPAG-ECNominations@bigbang.gsfc.nasa.gov</u>. Nominations must include both a cover letter and a one-page curriculum vitae summarizing the nominee's relevant background, all bound in a single PDF file with a file size no greater than 1 Mb. The cover letter should provide a description of the nominee's area(s) of expertise and qualifications for serving on the PhysPAG EC. The cover letter should also affirm that the nominee has the time available to be an active member of the EC at the necessary engagement level. The deadline for receipt of nominations is November 16, 2023, with announcement of selections anticipated in December 2023.

EC members will be selected according to the following criteria:

- a) Diversity across a variety of axes, including personal and professional backgrounds, geography, institution size, institution type, career stage, breadth of science; and technology expertise.
- b) As noted above, we seek EC members who can provide NASA with expert analysis of the science and/or technology gaps and offer analysis of solutions on how these gaps may be closed to realize the vision for our desired understanding of the Physics of the Cosmos.
- c) Relevant expertise to lead the current or planned SIGs (a list of current SIGs appears at <u>https://pcos.gsfc.nasa.gov/physpag/sigs-sags.php</u>) and spearhead analysis efforts that aid NASA's implementation of the recommendations of Astro2020.

d) EC members should also be "connectors" and "communicators", i.e., be active and engaged in the astrophysics community so that they can help facilitate a vibrant exchange of ideas, information, and knowledge between NASA and the broader community.

Nominations will only be accepted for scientists who reside at a U.S. Institution for the period of the service. There is no limitation on citizenship.

We look forward to working with all of our stakeholders to continue a robust and compelling Physics of the Cosmos Program.

Sincerely,

Francesca Civano, Ph.D. and Brian Humensky, Ph.D. Chief Scientists, Physics of the Cosmos Program Office NASA Goddard Space Flight Center

Valerie Connaughton, Ph.D. and Sanaz Vahidinia, Ph.D. Program Scientists, Physics of the Cosmos NASA Headquarters