

**NASA ADVISORY COUNCIL
ASTROPHYSICS SUBCOMMITTEE**

PHYSICS OF THE COSMOS PROGRAM ANALYSIS GROUP (PhysPAG)

TERMS OF REFERENCE

The Physics of the Cosmos Program Analysis Group (PhysPAG) is responsible for soliciting and coordinating community input into the development and execution of NASA's Physics of the Cosmos Program (PCOS). The PhysPAG serves as a community-based, interdisciplinary forum for analysis and input in support of Physics of the Cosmos objectives and of their implications for architecture planning and activity prioritization and for future exploration. It provides findings of analyses to NASA through the NASA Advisory Council (the Council) within which the PhysPAG Chair is a member of the Astrophysics Subcommittee.

The PhysPAG enables direct regular communication with the community through public meetings that give the community opportunities to provide its scientific and programmatic input. Structurally, the PhysPAG Chair and the PhysPAG Executive Committee (EC) are appointed members whose responsibilities include collecting and summarizing community input with subsequent reporting to NASA SMD via the NAC. The full PhysPAG consists of all members of the community who participate in these open meetings.

The PhysPAG may be tasked, as described below, to carry out the following:

- Articulate and prioritize the key scientific drivers for Physics of the Cosmos research;
- Evaluate the expected capabilities of potential PCOS missions for achieving the science goals of the Program;
- Evaluate PCOS goals, objectives, investigations and required measurements on the basis of the widest possible community outreach;
- Articulate and prioritize focus areas for needed mission technologies; and
- Provide recommendations on related activities such as ground-based observing, theory and modeling programs, laboratory astrophysics, suborbital investigations, data archiving and community engagement.

MEMBERSHIP

The Chair of the PhysPAG is drawn from the membership of the NAC Astrophysics Subcommittee and is appointed by the Associate Administrator (AA) for the Science Mission Directorate, following consultation with the Astrophysics Division Director and the Chair of the Astrophysics Subcommittee. The Chair is assisted by an Executive Secretary, who serves as a single point of contact within NASA, and the Executive Committee, which supports planning and activities of the PhysPAG. The PhysPAG Executive Secretary is appointed by the Astrophysics Division Director. Nominations for the PhysPAG executive committee are solicited through an open "Dear Colleague" letter to the community, and appointments are made by the Astrophysics Division Director with the concurrence of the SMD AA, and in consultation with the PhysPAG Chair and the Chair of the Astrophysics Subcommittee. The PhysPAG executive committee is constituted to achieve a functional balance among representatives of the

Physics of the Cosmos Program community. The nominal term for executive committee members is three years, with initial appointments made for periods of one, two, or three years to facilitate continuity in the membership.

MEETINGS

The PhysPAG will typically meet biannually or as otherwise needed as their tasks dictate. Tasking for PhysPAG activities will be initiated from SMD or the Science Committee and Astrophysics Subcommittee of the Council, in consultation with the PhysPAG Chair. The PhysPAG Chair will set the regular annual meeting schedule in consultation with the executive committee.

The PhysPAG may choose to organize sub-groups (e.g., Science Analysis Groups - SAGs and/or Science Interest Groups – SIGs) to deal with specific issues and report their findings to the full group. A SAG is typically tasked with reporting on a specific issue, and when the analysis of that issue is complete the SAG is disbanded. A SIG is typically tasked with collecting community input from a specific community on a longer-term basis.

REPORTING

The findings and analysis activity of each meeting of the PhysPAG will be reported to the Astrophysics Subcommittee.

ADMINISTRATIVE PROVISIONS

Logistical and organizational support to the PhysPAG Chair and Executive Committee members will be provided through the PCOS Program Office at Goddard Space Flight Center on behalf of the SMD Astrophysics Division. This support includes such functions as maintaining PhysPAG web site and email notification list, arranging logistics for PhysPAG meetings (e.g. arranging for meeting space, travel for EC members), collecting presentations from PhysPAG meetings and posting them on the web site, taking and distributing minutes of the PhysPAG meetings, etc.

DURATION

The PhysPAG terms of reference will be evaluated every two years at the time of formal renewal of the NASA Advisory Council Charter. If the Council's Astrophysics Subcommittee is terminated or expires, the PhysPAG will terminate. The PhysPAG may be terminated at the discretion of the Astrophysics Subcommittee. If the PhysPAG terminates, the PhysPAG terms of reference also terminate, and all appointments to the PhysPAG EC terminate.



Paul Hertz
Astrophysics Division Director
Science Missions Directorate

Date

8/8/13

Appendix A: Science Analysis Groups (SAGs)

In order to address a specific PCOS issue, a SAG may be established in order to perform analysis and report findings to the PhysPAG. Once the findings are reported, the SAG is closed out. The report may take the form of a white paper, or a presentation to the PhysPAG. SAGs are established with the approval of the Astrophysics Division Director and the concurrence of the PhysPAG chair and the Astrophysics Subcommittee chair.

The Chair of a SAG is either a member of the PhysPAG EC or a member of the wider PhysPAG, and membership is drawn from the EC and the wider PhysPAG community.

Appendix B: Science Interest Groups (SIGs)

In order to collect community input and address longer-term community interests, SIGs may be established. A SIG will have a single, well-defined area of interest (for example, a wavelength band or science topic). SIGs will report to the PhysPAG at each face-to-face meeting. SIGs are established with the approval of the Astrophysics Division Director and the concurrence of the PhysPAG chair and the Astrophysics Subcommittee chair.

The Chair of a SIG is either a member of the PhysPAG EC or a member of the wider PhysPAG, and membership is drawn from the EC and the wider PhysPAG community.