

PhysPAG Status

NAC APS Meeting
14 July 2011

S. Ritz

See
<http://pcos.gsfc.nasa.gov/physpag.php>

Includes email sign-up for news and
announcements

NASA National Aeronautics and Space Administration
Goddard Space Flight Center

+ Goddard S
+ Sciences a
+ Astrophys

OVERVIEW PROJECTS SCIENCE TECHNOLOGY PROGRAM OFFICE

Physics of the Cosmos PhysPAG

Links

- Documents
- PhysPAG
- ExEP Office
- Multimedia Library
- Contact Us

Objective

The Physics of the Cosmos Program Analysis Group (PhysPAG) serves as a forum for soliciting and coordinating input and analysis from the scientific community in support of the PCOS program objectives. The PhysPAG enables direct and regular communication through public meetings that give the community opportunities to provide its scientific and programmatic input. All interested scientists can contribute to the PhysPAG by participating in the PhysPAG meetings and by providing their input. The Executive Committee (EC) is the steering body of the PhysPAG. Its members are appointed by NASA with the concurrence of the Astrophysics Subcommittee, and their responsibilities include collecting and summarizing community input with subsequent reporting to NASA SMD via the NAC.

Program News

14 Jan 2011
NRC initiates project to evaluate NASA Technology Roadmaps » [Details](#)

21 Oct 2010
NASA releases NRA for Members of the Euclid Science Team » [Details](#)

13 Aug 2010
Astro2010 Decadal Survey Report Released » [Details](#)

Project News

Chandra News
12 Jan 2011
Taking the Pulse of a Black Hole System » [Details](#)

Fermi News
2 Feb 2011
2011 Fermi Symposium, Rome, Italy » [Details](#)

Planck News
11 Jan 2011
Planck's new view of the cosmic theatre » [Details](#)

XMM-Newton News
11 Oct 2010
XMM-Newton AO-10 Solicitation Closed » [Details](#)

PhysPAG Announcements

Sign up for [PhysPAG announcements](#).

Executive Committee

Steve Ritz (Chair) - University of California, Santa Cruz
Jason Rhodes - Jet Propulsion Laboratory
Shaul Hanany - University of Minnesota
Roger Brissenden - Harvard-Smithsonian Center for Astrophysics
Liz Hays - NASA Goddard Space Flight Center

Rita Sambruna (Executive Secretary, Ex-Officio) - NASA HQ
Jean Cottam (PCOS Program Office, Ex-Officio) - NASA GSFC

Upcoming Meetings

TBD

Past Meetings

- [First Meeting of the PhysPAG](#) — 13 Jan 2011, Seattle, WA

Contact

Rita Sambruna
HQ PCOS Program Scientist

Jean Cottam
PCOS Program Office Chief Scientist

Related Missions News

RXTE News
28 Nov 2010
RXTE Cycle 15 Accepted Program Now Available » [Details](#)

Suzaku News
15 Dec 2010
Exploring the X-ray Universe: Suzaku and Beyond » [Details](#)

Swift News
3 Jan 2011
Swift Cycle 7 Accepted Targets and Proposals Have Been Posted » [Details](#)

Executive Committee

- Roger Brissenden (CfA)
- Shaul Hanany (Minnesota)
- Liz Hays (GSFC)
- Guido Mueller (UFL)
- Jason Rhodes (JPL)
- Steve Ritz (UCSC), chair

physpag-ec@bigbang.gsfc.nasa.gov

- Most recent EC activities:
 - F2F meeting at Anaheim APS meeting
 - Follow-up telecon 16 May
 - Ongoing SAG work

Acronyms

- APS = Astrophysics Subcommittee of the NASA Advisory Committee (NAC) Science Committee
- APS = American Physical Society

1 May Face-to-face Agenda

- Intros, goals for the meeting, summary of APS meeting discussions - Steve (15)
- News from HQ - Rita (10+10)
- PCOS office activities - Jean (5)
- PCOS Program Office Technology Studies - Jackie Townsend (10+10)
- TechSAG – Roger, discussion (10+15)
- Gamma-ray science in the coming decade discussion - Liz, all (10+10)

- **10:45 BREAK (15)**

- CMB Science in the coming decade and IPSAG report – Shaul, all (10+10)
- Gravitational wave science in the coming decade discussion - Guido, all(10+20)
- X-ray science in the coming decade discussion – Pat Slane, all (10+20)

- COMMUNITY INPUTS AND COMMENTS, additional topics (20)
- Possible additional SAGs and community interactions brainstorming - all (20)
- AOB (5)
- Action items summary, next meeting (10)
- **13:15 ADJOURN**

An Overall Goal

- PCOS is a program, not a (single) community
- Big changes, recent international developments => need to **engage communities involved in PCOS science**
- 1 May Meeting:
 - Status and next steps for our existing tasks
 - Additional opportunities for PhysPAG to facilitate community involvement, additional tasks planning
 - Note: NASA is planning a PCOS Newsletter – our inputs requested

Summary (1)

- **A possible new SAG: Action:** Liz Hays and Julie McEnergy (more help welcome!) will produce a brief (<1-page) proposal for a Gamma-ray SAG
 - Science (possibly including Cosmic Rays -- maybe “G-C-RSAG” or maybe gamma rays and electron/positron High-energy Electromagnetic SAG)
 - Cover different energy domains (Compton through VHE)
 - **Deliverables of SAG** and notional timeline; scope of effort
 - PhysPAG will discuss and may bring it to APS for consideration
- **TechSAG** discussion next steps outcomes
 - Learned that inputs for the next technology call are **needed by late summer** to work up and back down chain by December.
 - Further broaden community connections to ensure coverage
 - Will continue to be mainly a collection exercise, not a critical evaluation; however, will
 - Map to PCOS science needs, list key open questions, estimated scope of effort likely needed, and the estimated timescale for fruition (and bases of estimates)
 - OK to state fact that a technology may be suitable for Explorer application.
 - ongoing telecons (most recent on 7 July, **see later summary slide**)
- **IPSAG** next step: comprehensive list of technologies, will coordinate with TechSAG. **See later summary slide.**

Summary (2)

- **GW discussion:** US community exploring with Europeans and NASA the potential modes of participation in the European-led mission.
 - Inputs to TechSAG, both near-term and long-term
 - A statement to the APS from PhysPAG EC (see following slide)
- **X-ray discussion:** Science needs for a large mission are clear. Analysis needed: can a subset of these goals justify missions of smaller scope? Connect with plans for ATHENA.
 - Inputs to TechSAG
 - Invite presentations at our next meeting on these topics
 - A statement to the APS from PhysPAG EC (see following slide)

PhysPAG EC Statement

- ***“The PhysPAG understands the X-ray and Gravity Wave communities in the US, after decades of investment, have great interest in finding a minor, but significant, hardware role in the emerging European-led missions, and continued deep involvement in this science. The opportunity costs and priorities for such a role should be understood in a timely manner. Regardless of the outcome of the European selection process, the communities see as vital the continued support of technology to enable possible future US-led missions in these science areas, as highlighted in the Astro2010/ NWNH Decadal Survey.”***

Summary (3)

- Connecting with the community:
 - Feedback on PCOS newsletter: great idea.
 - *Initial input: very important to communicate clearly the realistic landscape (budget scales and timescales) of possible future opportunities.*
- Next PhysPAG F2F meeting:
 - Full-day meeting immediately before winter AAS (co-located)
 - ☀ » **Request approved by AAS:** Sunday 8 January
 - Increase the turnout: more invited talks and plenty of notice.
 - Plus propose special summary session during the AAS meeting to summarize activities of all three PAGs.
 - ☀ » **Request approved by AAS:** 10 January 10:00-11:30
- Next-to-next F2F: April 2012 American Physical Society meeting, depending on date.

TechSAG Summary

- PCOS Technology Assessment Task
 - building on work done to assess gaps in NASA Technology roadmaps for NRC review
 - developing technology inputs for full range of PCOS science
 - input to PCOS Program office for Program Annual Technology Report
 - draft materials will be announced broadly (*e.g.*, to AAS HEAD mail list) to the community in mid-July
 - materials will be available on PhysPAG website for community review and comment
 - final materials to be completed by late-August
- Confirm OK for TechSAG to funnel info from community to PCOS Program Office directly without APS approval.
 - an information gathering activity, not an evaluation by TechSAG
 - information provided will also be posted on public website

Inflation Probe SAG Summary

- March 10, 2011: Dear colleague letter
- Shortly after about 40 signed up
- April 21: First Telecon (many participants)
 - Technology: what does NASA need/want? Is there a well defined plan? Deep concerns about technology development funding
 - Mid-decadal review: is an essential mechanism to enable NWNH recommendations
 - Need a mechanism (project office?) to enable planning and organization for future space mission
 - Actions: (1) work with Jackie on Technology plan; (2) voice other needs
- Following discussion in PhysPAG
 - Established committee of 7 to define an IP technology roadmap (Bock (JPL), chair + Gaier, Hanany, Irwin, Lee, Meyer, Moseley)
 - First draft ~July 15; Release to community for comments; final ~Aug. 15
 - Working closely with TechSAG
- What is the status of mid-decadal review?
- Will discuss mechanism to enable planning for space mission in future telecons and with PhysPAG

Discussion

- GW and X-ray Statement
- Other topics