National Aeronautics and Space Administration

Cosmic Origins Program Analysis Group (COPAG) Report to Astrophysics Advisory Committee (APAC) June 29 & 30

Dr. Margaret Meixner
Chair, Cosmic Origins Program Executive Committee

COPAG Executive Committee

Margaret Meixner (Chair)	*2021*		*SOFIA Science Mission Operations/USRA*
Janice Lee (Chair-elect)	*2022*		*Gemini/NOIRLab*
Christine Chen		*2024*	*Space Telescope Science Institute*
Chris Depree		*2024*	*Agnes Scott College*
Steve Finkelstein		*2021*	*University of Texas, Austin*
Lisseth Gavilan-Marin	*2024*		*NASA/Ames*
Christopher Hayward	*2024*		*Flatiron Institute*
Alina Kiessling		*2022*	*Jet Propulsion Laboratory, Caltech*
Stephan McCandliss	*2021*		*Johns Hopkins University*
Alexandra Pope		*2021*	*University of Massachusetts*
Sabrina Stierwalt		*2024*	*Occidental College*

COPAG EC has a rolling application form. We are actively looking for new members so please apply or encourage your colleagues to apply.
https://cor.gsfc.nasa.gov/news/Call_for_Nominations_to_COPAG_EC.php

Join the Cosmic Origins (COR) Analysis Group (COPAG) Executive Committee (EC) or a lead a Science Interest Group !

WHY?

- The EC provides analysis of community input for the purposes of informing NASA of community feedback on its programs.
- These analyses can have an impact: e.g. ADAP offerings, the Great Observatories report.
- Coming soon: Decadal Survey results, analysis of those results will be interesting, impactful and fun to discuss.
- New Science Interest Groups (SIGs): Cosmology, Galaxies, ISM and planet formation, Stars and stellar populations, State of the Profession and Societal Impacts

WHAT?

- The EC is a diverse and inclusive body and the diversity of thought from their different backgrounds is critical to the discussions and analysis.
- EC members span the breadth of COR science and the astrophysics community.
- We aim for ~12-16 members at any given time
- The committee reports to NASA HQ Astrophysics Division

HOW?

- COPAG EC has a rolling deadline for nominations and self-nominations:
- https://cor.gsfc.nasa.gov/news/Call_for_Nominations_to_COPAG_EC.php

UVSTIG QUEST Activity

https://cor.gsfc.nasa.gov/stigs/uvstig.php

- UVSTIG -- Quorum for Ultraviolet Exploration of Science and Technology
  - Community forum for science updates and technical sharing of “what works, what doesn’t”
  - Develop prioritization metrics for the UV/Vis components of Cosmic Origins Science guided by decadal debrief
  - Presentations on monthly basis – first or second Thursday of month at 15:00 ET
  - Intent to pair science talks with technology talks

  - QUEST01 -- 13 May 2021 – 28 attendees
    - Jason Tumlinson (STScI) – Tracking Technology Development Needs Post Astro2020
    - Derek Buzasi – MAGIC: The Massive star AsteroseismoloGy Instrument Cubesat
  - QUEST02 -- 03 June 2021 – 44 attendees
    - Thai Pham (NASA) – Technology Gap Prioritization Process: Astrophysics Biennial Technology Report 2021
    - Brian Fleming (CU/LASP) – SPRITE: A 12U CubeSat Experiment for Probing Galaxies and Supernova Remnants in the Far-UV
  - QUEST03 – 01 July 2021
    - Patrick Côté (NRC-Herzberg/University of Victoria) – CASTOR (Cosmological Advanced Survey Telescope for Optical and ultraviolet Research) – top priority mission out of 2020 Long Range Plan for Canadian Astronomy

Infrared Science & Technology Interest (IR STIG) – Activity Highlights

Meredith MacGregor & Michael Zemcov (co-chairs)

Continuing the webinar series

- Cadence of ~1 talk/month (Werner, Pope & Yun, planning Korngut in June).
- Attendance has been high (increasing recently!) - Between 30 and 60 scientists from around the world typically attend.
- All recordings posted to YouTube channel and website.

Continuing Newsletter

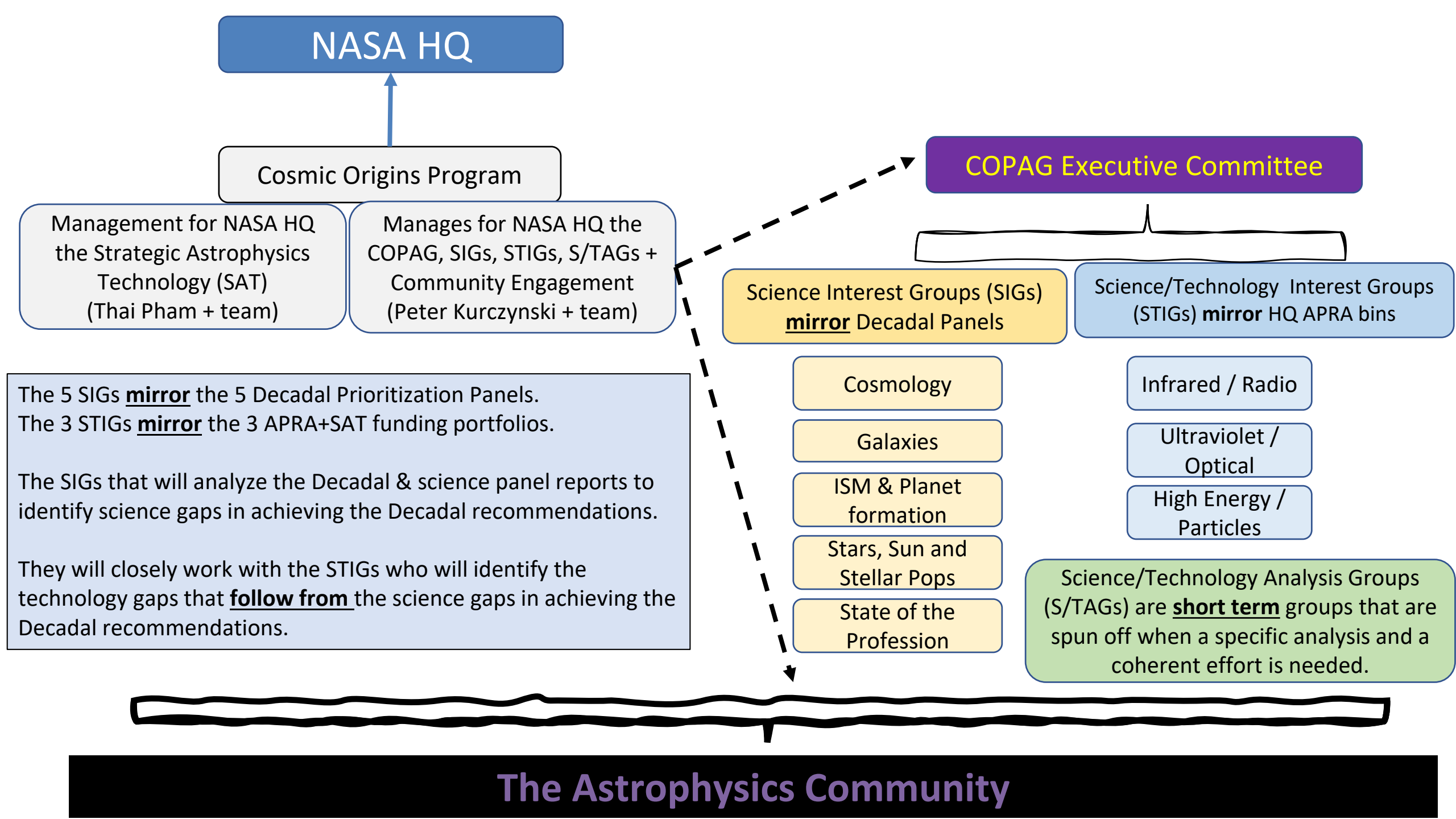
- Currently collating inputs and plan to release in summer 2021.

Writing Report on Splinter Session at 237th American Astronomical Society Meeting (~60 attendees)

- Using compiled notes from discussion to draft a summary
- Planning to distribute as part of next IR SIG newsletter.

Organizing virtual workshop "The Impacts of Astro2020 on IR Astrophysics" date TBD

- Opportunity for the community to synthesize the priorities from the Astro2020 review.
- Provide a forum for discussion of the future of the field in the next decade and beyond.
- Currently in planning stages; waiting for decadal before finalizing speakers, etc.


NASA HQ
Cosmic Origins Program
Management for NASA HQ the Strategic Astrophysics Technology (SAT) (Thai Pham + team)
Manages for NASA HQ the COPAG, SIGs, STIGs, S/TAGs + Community Engagement (Peter Kurczynski + team)
COPAG Executive Committee
Science Interest Groups (SIGs) mirror Decadal Panels
Science/Technology Interest Groups (STIGs) mirror HQ APRA bins
The 5 SIGs mirror the 5 Decadal Prioritization Panels.
The 3 STIGs mirror the 3 APRA+SAT funding portfolios.
The SIGs that will analyze the Decadal & science panel reports to identify science gaps in achieving the Decadal recommendations.
They will closely work with the STIGs who will identify the technology gaps that follow from the science gaps in achieving the Decadal recommendations.
Cosmology
Galaxies
ISM & Planet formation
Stars, Sun and Stellar Pops
State of the Profession
Infrared / Radio
Ultraviolet / Optical
High Energy / Particles
Science/Technology Analysis Groups (S/TAGs) are short term groups that are spun off when a specific analysis and a coherent effort is needed.
The Astrophysics Community

Kartik Sheth, Eric Tollestrup

Barb Grofic, Cathy Barclay

Thai Pham
Opher Ganel

Peter Kurczynski
Sangeeta Malhotra

Margaret Meixner, Janice Lee
Sabrina Stierwalt, Christine Chen, Chris Depree, Chris Hayward, Stephen McCandliss, Alina Kiessling, Steve Finkelstein, Alex Pope, Lisseth Gavilan-Marin

Science Interest Groups (SIGs) **mirror** Decadal Panels

- Cosmology
- Galaxies
- ISM & Planet formation
- Stars, Sun and Stellar Pops
- State of the Profession

Science/Technology Interest Groups (STIGs) **mirror** HQ APRA bins

- Infrared / Radio
- Ultraviolet / Optical
- High Energy / Particles

Science/Technology Analysis Groups (S/TAGs) are **short term** groups that are spun off when a specific analysis and a coherent effort is needed.

The Astrophysics Community

COPAG EC functions

- Serves like a board for the COPAG activities
- Reviews and discusses issues, reports and ideas arising from SIGs and SAGs
- Assists with recruitment of SIG and SAG members
- An EC member serves as a liaison to a SIG or SAG
- Oversees communications with community
- Helps organize community activities at meetings, e.g. AAS

COPAG Science Interest Groups for Decadal

- Draft general terms of reference generated and discussed with EC
  - Now at HQ for review

The SIG may be tasked to carry out the following:

1. Provide analysis of the Astronomy & Astrophysics Decadal Survey for NASA in support of implementing its recommendations for the subfield.

2. Identify and articulate “science gaps:” gaps between the current state of knowledge and the necessary state of knowledge that must be attained in order to directly address the overarching science goals and answer the most fundamental science questions within the subfield.

3. Serve as ambassadors to communicate to the science community how NASA is implementing the Decadal Survey recommendations and aggregate feedback from the community to NASA about this implementation.

4. Engage in scientific discussions and exchange ideas through meetings and seminars.

Tasking for the SIG will be initiated by the NASA Astrophysics Division Director via the Cosmic Origins Program Scientist.

2021: Ingest of Astro 2020 Decadal Survey Results

Further analysis by COPAG may be important to the ingest

COPAG is creating 5 new Science Interest Groups that parallel the Decadal Panels:

- Cosmology
- Galaxies
- ISM and planet formation
- Stars, Sun and Stellar Populations
- State of the Profession and Societal Impacts (cross-cutting SIG)

Interested in leading or joining one of these SIGs or STIGs?

Fill out this form: https://forms.gle/X1qUccRJk9Jy94iN6 or please contact any of us directly.