

National Aeronautics and  
Space Administration



**Cosmic Origins Program Analysis Group (COPAG)  
Report to Astrophysics Advisory Committee (APAC)  
October 13 & 15**

**Dr. Margaret Meixner  
Chair, Cosmic Origins Program  
Executive Committee**



# COPAG Executive Committee

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



# 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): Galaxies, ISM and planet formation, Stars and stellar populations

## 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, technology and the astrophysics community.
- We aim for ~12 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](https://cor.gsfc.nasa.gov/news/Call_for_Nominations_to_COPAG_EC.php)



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## Rotating off soon

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*COPAG EC has a rolling application form, and we asked for applications by Oct. 7 to address vacancies. Those applications are under review by Tollestrup.*

[https://cor.gsfc.nasa.gov/news/Call\\_for\\_Nominations\\_to\\_COPAG\\_EC.php](https://cor.gsfc.nasa.gov/news/Call_for_Nominations_to_COPAG_EC.php)

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

Galaxies

ISM & Planet formation

Stars, Sun and Stellar Pops

Infrared / Radio

Ultraviolet / Optical

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 3 SIGs **mirror** the 5 Decadal Prioritization Panels.  
The 2 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.

The Astrophysics Community

Eric Tollestrup  
Program Scientist

Barbara Grofic (Prog. Mgr.) Cathy  
Barclay (Dep. Prog. Mgr.)

Thai Pham  
(Technology Develop. Mgr)  
Opher Ganel  
(Program Technologist)

Peter Kurczynski  
(COR Chief Scientist)  
Sangeeta Malhotra  
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IRSTIG

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Started →



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Forming



Galaxies

Next to form



ISM & Planet  
formation

Started



Stars, Sun and  
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The Astrophysics Community



# Infrared Science Technology Interest Group – Activity Highlights

*Meredith MacGregor & Michael Zemcov (co-chairs)*

## **Annual Change of Personnel**

- Farrah, Kartaltepe, Murphy, Rangwala, Smith rotated off; Jake Connors (NIST), Arielle Moullet (SOFIA SC), Roberta Paladini (IPAC), and Volker Tolls (CfA) rotated on.

## **Continuing the webinar series**

- Continuing cadence of ~1 talk/month after summer hiatus.
- Attendance has been high, between 30 and 60 scientists from around the globe.
- All recordings posted to YouTube channel and website.

## **Continuing Newsletter**

- Released latest version in Aug 2021; next release planned Jan 2022.
- Aug edition included a written report on Splinter Session at 237<sup>th</sup> American Astronomical Society Meeting (~60 attendees).

## **Organizing virtual workshop “The Impacts of Astro2020 on IR Astrophysics”, date TBD.**

- Opportunity for the community to synthesize the priorities from the Astro2020 review.
- Currently in planning stages; waiting for decadal release before finalizing schedule.
- Not clear how this will relate to our usual splinter session at the winter AAS meeting.



# UVSTIG QUEST Seminar Activity

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

- UVSTIG -- Quorum for Ultraviolet Exploration of Science and Technology (QUEST)
  - 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 on an available Thursday at 15:00 ET
  - Intent to pair science talks with technology talks
  - Seminar videos posted to website (url above)
  
  - QUEST04 -- 27 August 2021 – 27 attendees
    - Brad Cenko (GSFC) – DORADO: Wide-field UV Imaging for the Multi-Messenger Era
  - QUEST05 -- 30 Sept 2021 – 37 attendees
    - Carlos Vargas & Haeun Chung (UAz) – Aspera: Revealing the Diffuse Universe
  - QUEST06 – 28 Oct 2021 –
    - James Rhoads (GSFC) – ULTRASAT
  - QUEST07 -- 18 Nov 2021
    - Kevin France (CU) – TBD
  
- Also held a kickoff meeting on 9 Sept 2021 to discuss logistics and content for 239 AAS UVSTIG Splinter Session
  - Tentative Theme – Decadal Impact on UV Science Priorities & Technology Maturation
  - Google docs page created to track UV component TRLs



# Stars Science Interest Group - Activity Highlights

## Yuan-Sen Ting (Chair)

### Personnel

- Formed transitional leadership council - a panel of 9 top scientists in various areas related to stars
- Currently, > 70 scientists subscribed to the Stars SIG

### Webinar series

- Hosting seminar once in every two weeks - starting this Friday (10/08)
- Covering 8 major facilities/research areas: JWST, Rubin, TESS, Gaia, Roman, 30m ELT, future multi-object spectrograph, hydrodynamics simulation
- All recording and slides will be posted on the Stars SIG homepage

### Townhall

- Hosting monthly town halls to discuss the Decadal survey, starting on 11/09

### Virtual Meeting

- Hosting a virtual workshop in early 2022
- Will be part of AAS splinter session in 2022

# 2021: Astro 2020 Decadal Survey



Further analysis by COPAG will be important to NASA

COPAG is creating 3 new Science Interest Groups that parallel the Decadal Panels:

- Galaxies
- ISM and planet formation
- Stars, Sun and Stellar Populations

COPAG has 2 Science and Technology Interest Groups

- IRSTIG
- UVSTIG

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.

# Commitment to Diversity, Equity and Inclusion

Society for Advancing Chicanos/Hispanics & Native Americans in Science (SACNAS)  
National Diversity in STEM Digital Conference

- Special session (joint with Physics of the Cosmos, Exoplanet Exploration, GSFC/Code 660)
  - Janice Lee will present a talk.
- Virtual booth

National Society of Black Physicists Annual Meeting

- Gold sponsorship
  - COR, PCOS, GSFC/Code 660
  - NASA SMD Divisions
- Virtual booth
- Special session
  - COR, PCOS, ExEP
  - NASA Astrophysics (GSFC/Code 660)



<https://www.nasa.gov/careers/our-mission-and-values>



# AAS: submitted splinter sessions, final program in progress

Session Name	Date (01/09 - 01/13)	Start Time (local time)	End Time (local time)	Estimated attendance	Organizer/Requestor
NASA Infrared Science & Technology Interest Group (IR STIG)	Monday, Jan 10	10:00	11:30	100	Meredith MacGregor
NASA Joint Program Analysis Group (PAG)	Monday, Jan 10	12:00	1:30	200	Peter Kurczynski
NASA Stars Science Interest Group (Stars SIG)	Monday, Jan 10	2:00	3:30	50	Peter Kurczynski
NASA Ultraviolet-Visible Science & Technology Interest Group (UV-STIG)	Tuesday, Jan 11	10:30	12:00	50	Jason Tumlinson
NASA Interstellar Medium Science Interest Group (ISM SIG)	Wednesday, Jan 12	12:30	2:00	50	Sangeeta Malhotra
NASA Galaxies Science Interest Group (Galaxies SIG)	Wednesday, Jan 12	2:00	3:30	50	Sangeeta Malhotra
NASA Cosmic Origins Program Analysis Group (COPAG)	Thursday, Jan 13	12:30	3:30	100	Janice Lee