Exoplanet Program Analysis Group (ExoPAG) 29

Ilaria Pascucci (U. Arizona) Chair, ExoPAG Executive Committee

January 6th, 2024

Articulate & prioritize science drivers for Exoplanet Exploration Research

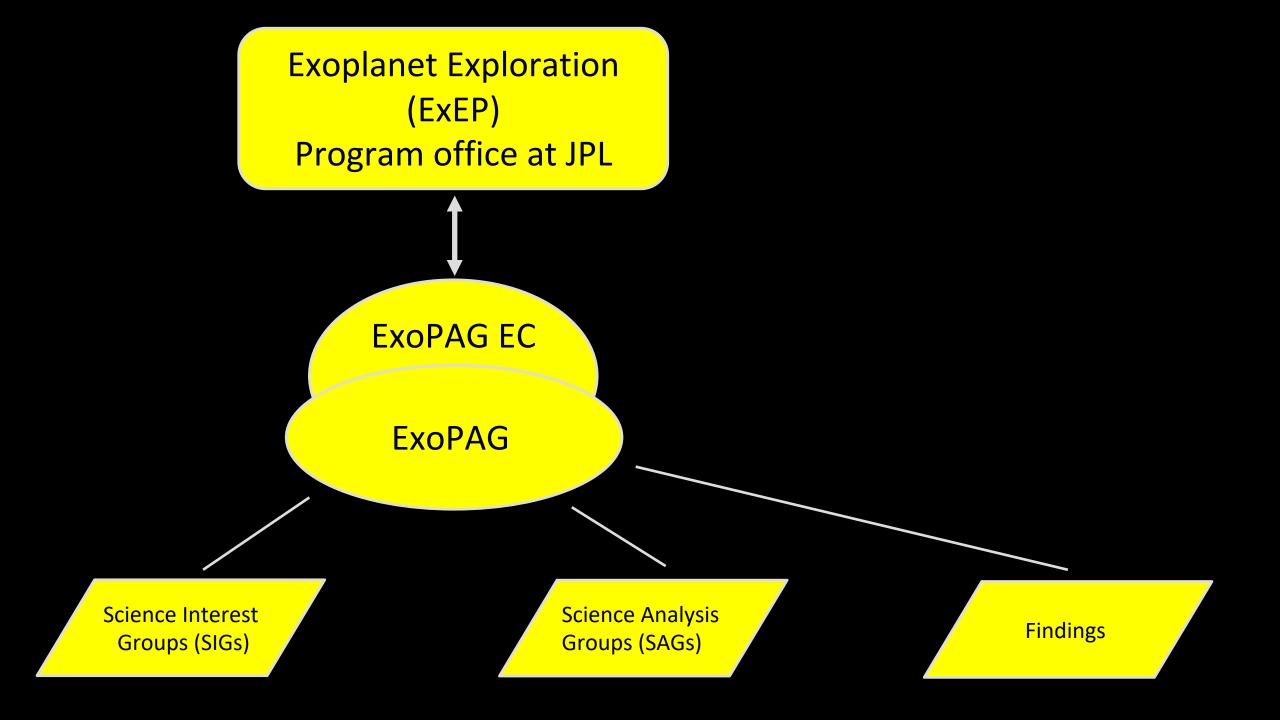
Evaluate capabilities of potential missions to achieve program goals

Evaluate the ExEP activities with broad community input

❑ Articulate & prioritize new mission technologies

Provide findings on all related program activities including: ground-based observing, theory and modeling programs, laboratory astrophysics, suborbital investigations, data archi community engagement □ You, the community, are the members!

This is your venue to help shape the community input to ExEP and NASA regarding exoplanet exploration



ExoPAG Science Interest Groups

Community-driven groups that focus on discussing specific exoplanet topics or goals (long-term activities, several years)

Ongoing SIGs:

- SIG2 "Exoplanets Demographics" (Chairs: Fernandes & Johnson)
- SIG3 "Exoplanets Solar System Synergies" (Chairs: Meadows & Mandt)

https://exoplanets.nasa.gov/exep/exopag/sigs/

Community-driven groups that focus on discussing specific exoplanet topics or goals (short-term activities. Reports completed in 1-2 years and available to the community via e.g. a PASP paper, ArXiv paper, workshop...)

□ 17 SAGs completed and 2 ongoing:

- SAG 23: The Impact of Exo-Zodiacal Dust on Exoplanet Direct Imaging Surveys (Debes, Hasegawa, Rebollido)
- SAG 24: Exploring the Complementary Science Value of Starshade Observations (Seager & Shaklan)

https://exoplanets.nasa.gov/exep/exopag/sag/

ExoPAG findings

- □ Findings are analysis carried out by the community and forwarded to the Astrophysics Division leadership as input [they are not recommendations]
- □ Ideas for new findings solicited from community (e.g. ExoPAG email and at Business Meetings) and discussed at community forum (e.g. Summer ExoPAG)
- □ Findings with community support are reviewed by ExoPAG EC and top 1-3 findings put forward to ExoPAG for a vote (more than 2/3 support needed to "pass"). Ideas not adopted (or selected for vote) can be kept and re-discussed in future

Approved findings are listed here: https://exoplanets.nasa.gov/exep/exopag/exopagFoundingDocuments/exopag-findings/

The ExoPAG Executive Committee and its Members

The Executive Committee organizes community input, oversees ExoPAG analyses, and reports ExoPAG findings and inputs to the Astrophysics Division Director

The ExoPAG Executive Committee and its Members

The Executive Committee organizes community input, oversees ExoPAG analyses, and reports ExoPAG findings and inputs to the Astrophysics Division Director



I. Pascucci



M. Bottom



O. Cohen



K. Colon



I. Crossfield



D. Dragomir





K. Follette

N. Hinkel



S. Johnson



E. May



B. Mennesson



M. Rice



L. Zhao

Thanks to all EC members for their service!

January 31st: deadline for nominations to the EC!

ExoPAG EC Members, Liaisons, and ExEP Support



I. Pascucci



M. Bottom

O. Cohen



K. Colon

I. Crossfield

field







K. Follette



S. Johnson



E. May



B. Mennesson



D. Dragomir

M. Rice



L. Zhao









M. Ansdell











E. Mamajek





K. Stapelfeldt

J. Gregory

J. Blumberg 10

M. Meyer

H. Jang Condell

J. Wisniewski

R. Eckman

nan

Toka for G. Fowler G. Blackwood

Selected ExoPAG EC activities

- Organize monthly ExoPAG EC + semi-annual ExoPAG meetings, cross-PAG meetings, report to the Astrophysics and the Planetary Science Advisory Committee
- □ Review and provide inputs to the Exoplanet Program Science Gap List
- □ Contribute to cross-PAG SIGs (Science Interest Group) and SAGs (Science Analysis Group)
- □ Contribute to ExoPAG SIGs and SAGs
- Sponsor the ExoExplorers Program which supports the professional development of early career scientists

Subscribe to the <u>exopagannounce@jpl.nasa.gov</u>

https://exoplanets.nasa.gov/exep/exopag/announcementList/

Participate to the semi-annual in-person meetings

Propose to start a Science Interest Group (SIG) or a Study Analysis Group (SAG)

Propose findings and suggestions

https://exoplanets.nasa.gov/exep/exopag/exopagFoundingDocuments/exopag findings/

January 6, 2024									
Session 1 (Chair: Ilaria Pascucci)		<u>Speaker</u>	Time (CST)	Duration	End				
	Welcome	Ilaria Pascucci	9:00 AM	0:15	9:15 AM				
	NASA Headquarters Exoplanet Exploration Program	Hannah Jang-Condell	9:15 AM	0:20	9:35 AM				
	Exoplanet Exploration Program (ExEP) Office	Gary Blackwood	9:35 AM	0:15	9:50 AM				
	ExEP Science	Karl Stapelfeldt	9:50 AM	0:15	10:05 AM				
	NASA Exoplanet Science Institute (NExScI) and NASA Exoplanet Archive Update	David Ciardi	10:05 AM	0:15	10:20 AM				
	BREAK (30 min)		10:20 AM	0:30	10:50 AM				
	ExEP Technology Update	Brendan Crill	10:50 AM	0:15	11:05 AM				
	SAG 22 final report	Natalie Hinkel	11:05 AM	0:15	11:20 AM				
	Potential SAG on technosignatures	Jason Wright	11:20 AM	0:15	11:35 AM				
	Potential SAG on atmospheric retrieval HWO	Renyu Hu	11:35 AM	0:15	11:50 AM				
	NASA's Transform to OPen Science (TOPS) initiative	Jenn Burt	11:50 AM	0:15	12:05 PM				
	LUNCH BREAK (90 min)		12:05 PM	1:30	1:35 PM				
	Introducing the 2024 ExoExplorers Cohort	Tiffany Kataria	1:35 PM	0:15	1:50 PM				
Session 2 Mini Symposium (Chair: Lily Zhao) TOPIC: Systems Architectures		Speaker	Time (CST)	Duration	End				
	No Evidence for More Earth-sized Planets in the Habitable Zone of Kepler's M versus FGK Stars	Galen Bergsten	1:50 PM	0:25	2:15 PM				
	The Path to Uncovering the Histories of TESS Circumbinary Planets	Dominic Oddo	2:15 PM	0:25	2:40 PM				
	Unveiling Orbital Architectures with the TESS-Keck Survey	Alex Polanski	2:40 PM	0:25	3:05 PM				
	BREAK (30 min)		3:05 PM	0:30	3:35 PM				
Session 3 SIG/SAG Update (Chair: Natalie Hinkel)		<u>Speaker</u>	Time (CST)	Duration	End				
	SIG 2: Exoplanet Demographics	Samson Johnson	3:35 PM	0:20	3:55 PM				
	SIG 3: Exoplanet / Solar System Synergies	Kathy Mandt	3:55 PM	0:20	4:15 PM				
	SAG 23: The Impact of Exo-Zodiacal Dust on Exoplanet Direct Imaging Surveys	John Debes	4:15 PM	0:20	4:35 PM				
	SAG 24: Exploring the Complementary Science Value of Starshade Observations	Sara Seager	4:35 PM	0:20	4:55 PM				

ExoPAG 29: agenda

https://exoplanets.nasa.gov/exep/exopag/exopag29/exop ag29 program/

ExoPAG 29: agenda

https://exoplanets.nasa.gov/exep/exopag/exopag29/exopag29 program/

January 7, 2024								
Session 4 (Chair: I	Kate Follette)	<u>Speaker</u>	Time (CST)	Duration	End			
	NASA Astrobiology Program	David Grinspoon	9:00 AM	0:30	9:30 AM			
	Roman - review of accepted exoplanet-focused investigations	Scott Gaudi	9:30 AM	0:20	9:50 AM			
	Timelines of planetary and astrophysics missions	Stephen Kane	9:50 AM	0:20	10:10 AM			
	START team: plans and interactions with the ExoPAG community	Courtney Dressing	10:10 AM	0:20	10:30 AM			
	BREAK (30 min)		10:30 AM	0:30	11:00 AM			
Session 5 (Chair: Ilaria Pascucci)		<u>Speaker</u>	Time (CST)	Duration	End			
	Business Meeting: Discuss New SIGs/SAGs, Discuss Potential New Findings, Solicit new suggestions for ExEP or ExoPAG action, Announcements, etc.	Lead: Ilaria Pascucci astro-planetary connections: Diana Dragomir JWST targets: Ian Crossfield Solicit new suggestions/findings: Gary Blackwood	11:00 AM	1:30	12:30 PM			
	Adjourn		12:30 PM					

- 1. Enhancing the synergy between the astro and planetary science communities in exoplanet studies (Lead: Diana Dragomir)
- 1. Exoplanet targets for JWST (Lead: Ian Crossfield)

1. Solicitation of new suggestions and findings (Lead: Gary Blackwood)

ExoPAG 29 Logistics Guide

Thanks to Jennifer Gregory and Jennifer Blumberg for their help in organizing the meeting!

Below are useful links and information to enable full participation in the ExoPAG 29 meeting, whether remote or in-person.

The meeting website w/ agenda https://go.nasa.gov/472hYYd Every resource used during the meeting can be found here. Includes the agenda, link to Webex remote connection, link to Q&A session, link to ExoPAG Slack, Code of Conduct, venue info, and registered participants. When presentations are cleared for public release, they will be posted on the site as well



ExoPAG Slack Space https://bit.ly/exopag29slack

Slack will be the main source of communication for all meeting attendees

Q&A Participation https://bit.ly/exopag29QA

In-person participants may ask questions verbally using the microphones in the room. Both remote and in-person participants may also use the online NASA Q&A session to submit a question which will be moderated and addressed by the session chairs and speakers. All online submissions will be anonymous. Participants may also upvote a question asked by another individual

Google Drive https://bit.ly/exopag29google

Preliminary versions of *most* talks will be available at the start of the meeting in this google folder

Webex Remote Participation https://bit.ly/exopag29webex

Meeting ID: 2760 228 0383 Passcode: planets2024 Audio connection (US): 844-575-9329 Enter Meeting ID then # Find your local number: https://bitly/webexglobal

Policies and Conduct NASA Statement of Principles https://go.nasa.gov/3H3PaE2 AAS Policies and Conduct https://bit.ly/aaspolicies

ExoPAG attendees are expected to abide by the NASA Statement of Principles and the AAS Policies

ExoPAG Suggestions https://bit.ly/exopagsuggestions

The purpose of this form is for the science community to provide input to the ExoPAG executive council (EC). Community members may propose suggestions for the ExoPAG that will be dispositioned by the EC and can subsequently be discussed by the full ExoPAG

ExoPAG Findings https://bit.ly/exopagfindings

The purpose of this form is to propose findings that can be discussed and voted on by the full ExoPAG. Findings that are voted on are provided to NASA Headquarters via a written memo from the ExoPAG Executive Committee (EC)





