

Exoplanet Program Analysis Group

ExoPAG

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

January 11-12, 2025

Credit: NASA

The Society is saddened and concerned by the tragedy unfolding in Southern California. We are deeply worried for everyone who has been impacted, directly or indirectly. The fires sweeping through the Pacific Palisades, Altadena/Pasadena, and other locations are devastating many, many people, including many of our members. We encourage members with the means to donate to reputable charities supporting those affected by this tragic fire. [This LA Times article](#) provides some suggestions of how you can help, and the Federal Trade Commission offers [good guidance](#) on how to avoid giving money to scam charities.

From Roberta Paladini, IR STIG Co-Chair, Caltech-IPAC

The Caltech/JPL Astronomy community has been particularly impacted by the fires. At least 150 people at JPL and tens of people at Caltech have lost all their possessions, their homes and sometimes also their cars. This includes students, Postdocs, staff members and professors many with small kids. These people need literally **everything** right now. The level of destruction and devastation is hard to explain in words and our hearts are filled with a sense of grief and loss. Right now, we are crying for our friends, colleagues and the city of Los Angeles. There are three GoFund initiatives that I am aware of (but **please** feel free to circulate any other initiatives you may know of) and these can provide a very tangible help. **Consider donating if you can for at least one of these:**

[Caltech-JPL community:](#)

@NASAJPL is untouched by fire due to the brave dedication of our first responders. But our community has been very seriously impacted with over 150 JPLers who have lost their homes and many more displaced. Please consider offering support here: <https://t.co/PGpNj2Z1Zf>

[Caltech-IPAC community:](#)

[Donate to Support Our IPAC Family Affected by the Eaton Fire, organized by Wendy Burt](#)

Several members of our IPAC family have lost their homes in the devastation... Wendy Burt needs your support for Support Our IPAC Family Affected by the Eaton Fire

[gofundme.com](#) [Donate to Support NASA JPL HabWorlds teammates in the Pasadena fires, organized by Jason Tumlinson](#)

Note that this started as only being within the HabWorlds Collaboration but is now expanded out.

What is the ExoPAG?

The ExoPAG is an interdisciplinary
community-driven forum which
provides input to NASA's Exoplanet
Exploration Program

Exoplanet Exploration
(ExEP)
Program office at JPL



ExoPAG EC

ExoPAG

Science Interest
Groups (SIGs)

Science Analysis
Groups (SAGs)

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



I. Pascucci



T. Beatty



I. Crossfield



C. Dong



D. Dragomir



K. Follette



J. Girard



S. Johnson



E. May



B. Mennesson



S. Peacock



M. Rice



L. Zhao

Thanks to all EC members for their service!

Exiting members in 2025: Pascucci, Dragomir, Johnson, May, and Mennesson



ExoPAG EC Liaisons and ExEP Support



L. Paganini
Astrophysics



H. Jang-Condell
Astrophysics



J. Wisniewski
Astrophysics



R. Dawson-Rigas
Planetary



R. Eckman
Earth Science



Toka for G. Fowler
Heliophysics



D. Gelino



D. Ardila



K. Stapelfeldt



E. Mamajek



J. Gregory



R. Lemuš

Ribbon identification for this meeting



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”
- SIG3 “Exoplanets Solar System Synergies”



ExoPAG Study Analysis Groups

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 4 ongoing:

- SAG 23: The Impact of Exo-Zodiacal Dust on Exoplanet Direct Imaging Surveys
- SAG 24: Exploring the Complementary Science Value of Starshade Observations
- SAG25: Technosignatures
- SAG26: Exoplanet Reflectance spectroscopy for HWO



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/>

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 ExoPAG & cross-PAG SIGs and SAGs
- ❑ Sponsor the **ExoExplorers** Program supports the professional development of early career scientists
- ❑ Coordination of community white papers for **NASA Decadal Astrobiology Research and Exploration Strategy** (NASA-DARES)
- ❑ Generated an **ExoPAG Operating Procedures'** document:
https://exoplanets.nasa.gov/internal_resources/2975/ExoPAG-Operating_Procedures.pdf

ExoPAG impacts on NASA policies & funding lines (1)



- **Suggestions from ExoPAG meetings:**
 - Student presentations & travel funding for ExoPAG meetings
 - ExoExplorers Program & the funding support for it
- **ExoPAG formal findings:**
 - 2020: Added ex-officio ExoPAG representatives from the Heliophysics, Planetary Science, and Earth Science Divisions
- **ExoPAG SIG reports:**
 - 2015: SIG 1 report guided HQ selection of Large Mission Studies for the 2020 Decadal Survey
- **ExoPAG SAG reports:**
 - 2012: SAG 1 report ratifies Keck and LBT nuller approaches to exozodi surveys
 - 2013: SAG 5 report revisited exoplanet science requirements for a large direct imaging mission
 - 2015: SAG 8 provided crucial support for the HQ AO that produced the NEID PRV spectrograph

ExoPAG impacts on NASA policies & funding lines (2)



- **ExoPAG SAG reports (continued)**
 - 2015: SAG 10 identified need for a 1m class transit spectroscopy mission, which eventually became the U.S. CASE contribution to ESA's ARIEL mission
 - 2014: SAG 11 microlensing recommendations seeded dedicated observing campaigns with Spitzer and K2
 - 2017: SAG 13 report compiled occurrence rates from the literature, these were widely used by the community in following years including in the HabEx & LUVOIR studies
 - 2018: SAG 16 on biosignatures worked with NExSS to hold a workshop & produce 6 papers in a special issue of *Astrobiology* (960 total citations in first 6 ½ years)
 - 2018: SAG 17 made the case for community TESS followup needs, contributing to the initiation & continuation of speckle imaging, southern RV, and NASA Keck access programs
 - The SAG 15, 19, and 22 reports have made findings that will be impactful on HWO going forward
 - 2023: SAG 21 report resulted in a new ExEP Science Gap on stellar contamination of transmission spectra

Ways to stay informed and participate

- ❑ Subscribe to the exopagannounce@jpl.nasa.gov

<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/>

Session 1 (Chair: Ilaria Pascucci)		Speaker	Time (EST)	Duration	End
	Welcome	Ilaria Pascucci	9:00 AM	0:15	9:15 AM
	NASA Headquarters Exoplanet Exploration Program Update	John Wisniewski	9:15 AM	0:15	9:30 AM
	Exoplanet Exploration Program (ExEP) Office Update	Dawn Gelino	9:30 AM	0:15	9:45 AM
	ExEP Science Update	Karl Stapelfeldt	9:45 AM	0:15	10:00 AM
	NASA Exoplanet Science Institute (NExSci), NASA Exoplanet Archive Update	Jessie Christiansen	10:00 AM	0:10	10:10 AM
	BREAK (30 min)		10:10 AM	0:30	10:40 AM
	NASA's Decadal Astrobiology Research and Exploration Strategy (DARES)	Rachel Harris	10:40 AM	0:15	10:55 AM
	Cosmic Pathfinders Program Update	Ronald Gamble	10:55 AM	0:15	11:10 AM
	Early Career Talks- Session 1 (10 min. each)	William Balmer Clarissa Do O' Jiapeng Gao	11:10 AM	0:30	11:40 AM
	ExEP Technology Update	Brendan Crill	11:40 AM	0:15	11:55 AM
	Pandora Mission Update	Elisa Quintana	11:55 AM	0:20	12:15 PM
	LUNCH BREAK (90 min)		12:15 PM	1:30	1:45 PM
Session 2 SIG/SAG update (Chair: TBA)		Speaker	Time (EST)	Duration	End
	SIG 2: Exoplanet Demographics	Rachel Fernandes	1:45 PM	0:15	2:00 PM
	SAG 23: The Impact of Exo-Zodiacal Dust on Exoplanet Direct Imaging Surveys	Yasuhiro Hasegawa	2:00 PM	0:15	2:15 PM
	SAG 24: Exploring the Complementary Science Value of Starshade Observations	Stuart Shaklan	2:15 PM	0:15	2:30 PM
	Open Mic Exoplanet Community Forum: changes in proprietary period	Lead: Kate Follette	2:30 PM	0:30	3:00 PM
	BREAK (30 min)		3:00 PM	0:30	3:30 PM
Session 3 SIG/SAG Update (Chair: TBA)		Speaker	Time (EST)	Duration	End
	SAG 25: Technosignatures	Sofia Sheikh	3:30 PM	0:15	3:45 PM
	SAG 26: Exoplanet Reflectance Spectroscopy for the Habitable Worlds Observatory	Ty Robinson	3:45 PM	0:15	4:00 PM
	Exoplanetary System Dynamical Considerations for NASA Missions	Juliette Becker	4:00 PM	0:20	4:20 PM
	HWO working group update: Target Stars	Eric Mamajek	4:20 PM	0:15	4:35 PM
	HWO working group update: Exoplanet Demographics	Malena Rice	4:35 PM	0:15	4:50 PM
	NEID Instrument Status on WIYN and the GTO Science Program Results	Paul Robertson	4:50 PM	0:20	5:10 PM

ExoPAG 31: agenda

<https://exoplanets.nasa.gov/exep/exopag/exopag31/exopag31-program/>

Today :

- Short programmatic talks: what's new in NASA's exoplanet exploration?
- Early-career talks: exciting new science!
- SIGs/SAGs updates: how can you contribute?
- Upcoming missions: how can you get involved?
- Open Mic Exoplanet Community Forum: what's your take on eliminating proprietary data?

Session 4 (Chair: TBA)		Speaker	Time (EST)	Duration	End
Introduction of 2025 ExoExplorers Cohort		Tiffany Kataria	9:00 AM	0:15	9:15 AM
Early Career Talks- session 2 (10min each)		Suchitra Narayanan Galen Bergsten Hannah Osborne Jonathan Brande	9:15 AM	0:40	9:55 AM
Ariel Mission Update + Ariel Science Center		Giovanna Tinetti	9:55 AM	0:20	10:15 AM
Community Science Opportunities with the Roman Space Telescope		Tom Barkley	10:15 AM	0:20	10:35 AM
Preparing for Gaia's Exoplanet List (which data products will be released, reliability, non detections)		Alessandro Sozzetti	10:35 AM	0:20	10:55 AM
BREAK (30 min)			10:55 AM	0:30	11:25 AM
Session 5 (Chair: Ilaria Pascucci)		Speaker	Time (EST)	Duration	End
Open Mic Exoplanet Community Forum: Discuss issues that might motivate new SIGs/SAGs, Potential new ExoPAG Findings, collect new suggestions for ExEP or ExoPAG action, announcements, etc.		Lead: Ilaria Pascucci	11:25 AM	1:00	12:25 PM
Adjourn			12:25 PM		

ExoPAG 31: agenda

<https://exoplanets.nasa.gov/exep/exopag/exopag31/exopag31-program/>

Ask questions! Provide suggestions!

Tomorrow :

- The new cohort of ExoExplorers and ExoGuides
- Early-career talks: exciting new science!
- Upcoming missions: how can you get involved?
- Open Mic Exoplanet Community Forum: new SIGs/SAGs/Suggestions/Comments



ExoPAG Attendees Survey

<https://forms.gle/EenXVqyyWFBWLXSf8>

Group Photo!

Just before the lunch break

ExoPAG 31 Logistics Guide

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

ExoPAG 31 Logistics Guide

Below are useful links and information to enable full participation in the ExoPAG 31 meeting, whether remote or in-person.

The meeting website w/ agenda <https://go.nasa.gov/3WubK11>
Resource used during the meeting can be found here. Includes the **agenda**, links to the **Teams** remote connection, the **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/exopag31slack>

Slack will be the main source of informal interaction and conversation for all meeting attendees



Q&A Participation <https://bit.ly/3BUQKcx>

Attendees may use the online NASA Q&A session to submit an anonymous question which will be moderated and addressed by the session chairs and speakers. Participants may also upvote a question asked by another individual



Google Drive <https://bit.ly/exopag31google>

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



Teams Remote Participation <https://bit.ly/exopag31teams>

Meeting ID: 299 927 557 62

Passcode: Wc6im3io

Audio connection (US): 1 323-813-7400 Phone Conf ID 315 254 283#

Find your local number: <https://bit.ly/teamslocalnumber>



Policies and Conduct <https://go.nasa.gov/404Uv75>

Including ExoPAG code of conduct, NASA APD statement of principles and AAS meeting policies

ExoPAG attendees are expected to abide by the ExoPAG code of conduct, 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 committee (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 EC

