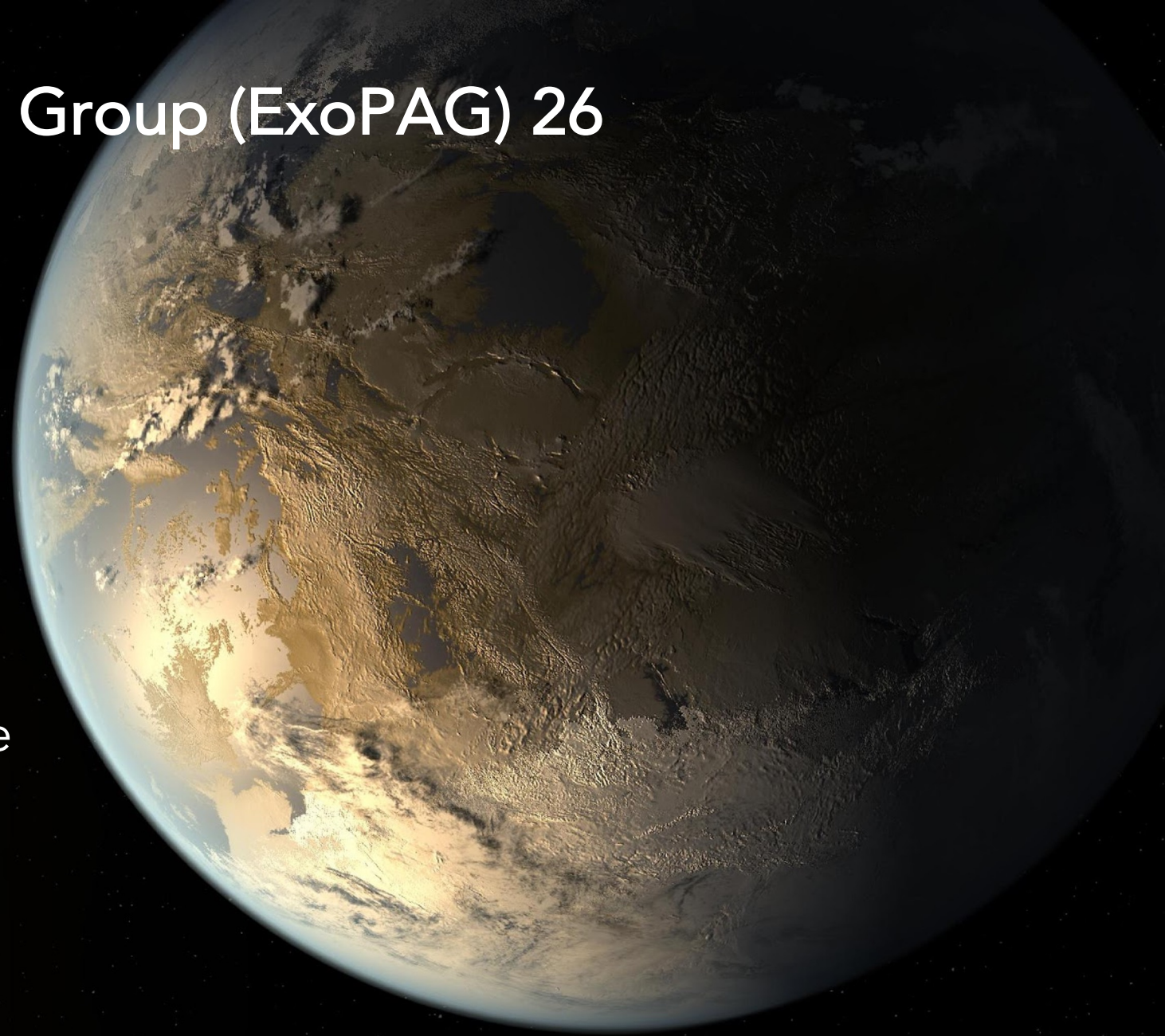


Exoplanet Program Analysis Group (ExoPAG) 26

Michael Meyer (U. Michigan)
Chair, ExoPAG Executive Committee

June 11-12, 2022



ExoPAG 26
Code of Conduct
June 11-12, 2022

Attendees of ExoPAG 26 are expected to abide by the following Code of Conduct.

The organizers are committed to making this meeting productive and enjoyable for everyone, regardless of gender, sexual orientation, disability, physical appearance, body size, race, nationality or religion. We will not tolerate harassment or bullying of participants in any form. Please follow these guidelines:

- Behave professionally. Harassment, bullying, and sexist, racist, or exclusionary comments or jokes are not appropriate. Harassment includes sustained disruption of talks or other events, inappropriate physical contact, sexual attention or innuendo, deliberate intimidation, stalking, and photography or recording of an individual without consent. It also includes offensive comments related to gender, sexual orientation, disability, physical appearance, body size, race or religion.
- All communication should be appropriate for a professional audience including people of many different backgrounds. Sexual language and imagery is not appropriate.
- Be kind to others. Do not insult or put down other attendees. Critique ideas, not people.
- If participants wish to share photos or contents of talks/slides of any attendee or speaker on social media, we ask that they first get permission.

Participants asked to stop any inappropriate behavior are expected to comply immediately. Attendees violating these rules will be asked to leave the event at the sole discretion of the organizers.

Any participant who wishes to report a violation of this policy is asked to speak, in confidence, to Hannah Jang-Condell (hannah.jang-condell@nasa.gov) or Michael Meyer (mrmeyer@umich.edu)

ExoPAG Meeting 26

June 11-12, 2022

- Meeting Website & Agenda: <https://go.nasa.gov/3zsl5vg>
- ExoPAG Slack channel <https://bit.ly/exopagslack>
- ExoPAG Google Drive: <https://bit.ly/exopag26-google>
- Conference Q&A Tool: <https://bit.ly/QANDA26>
- ExoPAG FAQ Document: <https://bit.ly/exopag-FAQ>
- Finding Voting Poll: <https://bit.ly/finding-vote>
- Suggestions Form: <https://bit.ly/exopag-suggestion>
- Proposed Findings Form: <https://bit.ly/exopag-findings>



Scan to join the
Q&A session

ExoPAG 26 Business Meeting: June 12 10:45-12:15 pm PDT

- Update on new SAG23 (I. Rebolledo).
- Discuss and vote on proposed finding concerning XRP
 - As advertised on exopagannounce email (see Slack posting).
- Share new ideas for ExoPAG priorities and activities.
 - New Cross PAG SAG in support of GOMAP Activities for IROUV?
- Review of progress on past suggested actions (E. Mamajek).
- Feel free to share announcements for the community.
 - TDAMM (J. Pepper)

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What are “ExoPAG Findings”?:

- Process for whole community to contribute to analyses forwarded to Astrophysics Division leadership as input.
- We do not give “recommendations” but “findings” based on analysis.
- Three findings approved in January 2020 and one in March 2021.
<https://exoplanets.nasa.gov/exep/exopag/exopagFoundingDocuments/exopag-findings/>
- Ideas for new findings solicited from community (e.g. ExoPAG email and at Business Meetings) and discussed at community forum (e.g. Summer ExoPAG).
- Those 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.
- Affirmation of findings generally scheduled for winter ExoPAG meeting.

On the benefit of increased funding for the Exoplanet Research Program

"Whereas the Decadal Survey on Astronomy and Astrophysics 2020 emphasizes exoplanet research and has identified as a priority science area the search for habitable worlds, and whereas the exoplanet research community has significantly grown over the past years and attracted many young scientists.

We find that the proposal success rate in the Exoplanet Research Program falls well below the success rate of other comparable programs which can potentially hurt the retention and training of young scientists, US leadership in exoplanet science, and the efficiency with which NASA can achieve its strategic goals."

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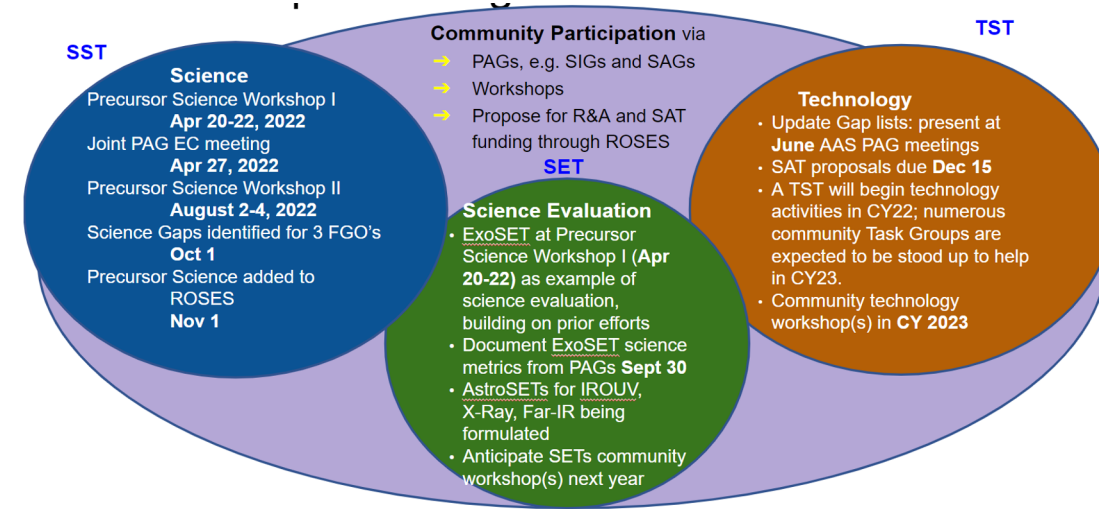
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Cross-PAG SAG in support of GOMAP Activities for IROUV

We propose a new Science Interest Group (SIG), supporting the Great Observatories Maturation Program (GOMAP) activities for mission concept development relevant for a large aperture (e.g. 6 meter class) infrared/optical/ultra-violet optimized space telescope (IROUV), as endorsed by Astro 2020. We believe forming this SIG would be very beneficial to APD, conducting analyses on scientific and related technical issues that would inform the GOMAP, potentially making it more efficient (in time as well as resources spent per value-added). The SIG would attempt to take full advantage of work done previously in the context of the STDTs that provided mission concept study reports as input to the Astro 2020 decadal survey. It would also take advantage of work done by other entities such as the NASA Exoplanet System Science (NExSS) research coordination network and coordinate its work with those entities. Given the broad applicability of such a mission, it is important that all PAGs be included in this activity. We propose that the activities of the SIG be coordinated by a five-person team, comprised of members of ExoPAG, COPAG, and PhysPAG, with membership open to all three PAGs. The SIG would conduct analyses proposed by members of the PAGs as coordinated and prioritized by the leadership team. Specific analyses would result in technical reports addressed to APD Program Scientists in time-limited activities. However, we expect that such a cross-PAG SIG would be useful to NASA APD for several years.

Interfaces to PAGs

- Please tell us how you'd like us to work with you, and for how you'd like to work with us
- Possibilities:
 - How would the PAGs self-organize to work with the GOMaP NASA teams?
 - Community GOMaP teams
 - Science Strategy (Curating Requirements, Precursor Science)
 - Technology Strategy (gap lists, key technology trades to enable science)
 - Science Evaluation (yields, figures of merit, vs the requirements)
 - Would there be any joint PAG activities? e.g., a joint PAG SIG for each of the 3 FGOs, umbrella for interface to NASA GOMaP, each SIG to initiate subgroups as necessary
 - What forums of engagement would be most effective?
- How would you organize to maximize inclusion from multi-sector community?
 - Industry, academia, NASA Centers, OGAs, international partners, ...
- Let's acknowledge Conflicts of Interest as solicitations are being prepared
- You are the customer - be the source of requirements, provide feedback to NASA



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ExoPAG Suggestions Status - 1

Last reviewed by the group at ExoPAG 25 (Jan 2022):

- Nearly-resolved suggestions from previous ExoPAG meetings
 - **Initiate new SAG on debris disks and exozodi** → **SAG 23** (John Debes)
 - **Opacity webserver** for atmosphere modelers – NASA funded effort @ Ames
 - N. Batalha overview talk will now take place at ExoPAG 27
 - **New Mission Stars list** at the Exoplanet Archive to reflect IROUV 6m, in support of precursor & preparatory science work (Mamajek & Stapelfeldt) → *will be sent out for expert review after ExoPAG 26; catalog and documentation will be posted at NASA Exoplanet Archive after review*
- **Older Suggestions still pending**
 - **Discussion of common standards** for publishing exoplanet discoveries (D. Segevsky & SIG 2)

ExoPAG Suggestions Status - 2

New suggestions made at/before ExoPAG 25 (Jan 2022) :

- **Decadal technology** (Belikov): “A workshop about how to make the LUVOIR/HabEx decadal mission even better (within the context of exoplanet science). In particular, how to improve performance, schedule, and/or cost. Topics could be focused, such as performance improvements and breakthroughs in coronagraph and wavefront control technologies, or be more general, such as improvements/breakthroughs in telescope stability, large mirror technologies, DRM, flagship management strategies, etc. The idea is to provide the mission study teams a comprehensive list of technologies and other methods as inputs into broad and detailed trade studies, and information about how they could improve the mission.” → **Suggestion resubmitted 5/2022, covered in Rus’ talk yesterday, and Nick’ GOMaP TST talk**
- **Biosignature Assessment Standards** (Domagal-Goldman): ‘ExoPAG should partner with NExSS and NFOLD to apply "*standards for biosignature detection*" to both JWST and [IROUV] examples. The former will be for us to understand how to interpret JWST data and the latter could impact the IROUV GOMaP effort’ →

ExoPAG Suggestions Status - 3

New recent suggestions (submitted *since* ExoPAG 25 / Jan 2022) :

- **Technology** (Jean Schneider) Investigate in more details the spatial "hypertelescope" concept, a large interferometer with many subpupilles combined with a "pupille densifier", providing an extremely high angular resolution image. Combined with a coronagraph can make multipixel imaging of exoplanets. More details [here](#): Can also detect gravitational waves (in preparation)
- **Talk at ExoPAG** (David Ciardi): Ask Dmitry Savransky to give a talk at the ExoPAG about Imaging Database so that community knows about this great service.
- **Astro 2020** (Mike Meyer): I think the ExoPAG should coordinate with the COPAG and PhysPAG to propose a cross PAG SIG to provide analyses to NASA APD in support of GOMAP activities related to developing IROUV as endorsed by Astro 2020.
- **Today's business meeting is an opportunity to capture new suggestions**

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- Special thanks to Jennifer Gregory & Rebecca Gonzalez.
 - and the entire ExEP Team!
- Thank you for your active participation:
 - YOU are ExoPAG
- See you in January for ExoPAG 27:
 - Presumably at AAS 241?
- And best wishes to Ilaria Pascucci (incoming Chair) and the new EC members going forward!