

Jet Propulsion Laboratory
California Institute of Technology

Disposition of Suggestions from Prior ExoPAG





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July 29, 2018

Reported as Complete at Prior ExoPAG

ExoPAG - Open Discussion

Legend	
1	Very high benefit/"cost", low hanging fruit, just do it
2	High benefit/"cost", needs some analysis, potentially relatively easy
3	Low or questionable benefit/"cost", requires lots of analysis, likely difficult
4	Low benefit/"cost", difficult





Done / Ongoing	
Action Being Worked	
Uncertain - need status	
Open	

Feasibility		Suggestion / Comment	Assigned To:	16 17 18			Current Status
1	ExoPAG Agenda	ExoPAG discussions, format, etc are good	ExoPAG EC	Y	C		Continue: Follow similar PAG format: priority topics with lots of discussion, short SAG reports, followed by Send-and-Receive forums at following conference(s)
1	Advertise Keck	Advertise that Keck time is available for the community	Ciardi	Y	C		Advertised at: - NExSci webpages - Mass mailing to exoplanet lists and previous past NASA Keck PIs and Co-Is - Various Planetary Sciences newsletters (PEN, DPSC, LPSC) through Doris Dao at NASA HQ Planetary Sciences Division - Exoplanet Newsletter - ExoPAG mailing (most semesters) - AAS and DPS meetings at booth video, handouts, and word of mouth
1	Revisit	Pass forward these lessons learned/feedback for next ExoPAG	ExoPAG EC	Y	C		Present this chart with dispositions to next ExoPAG
1	NNF	Invite NASA Names Fellows to ExoPAG meetings	ExoPAG EC	Y	C		NNF serving on E Kempton's panel. Exoplanet NNFs since 2012 added to exopagannounce, and automatically going forward
1	APAC	APAC summary for EC	Meadows	Y	C		Alan (now Vikki) sends APAC summary to EC
1	Advertise ExoPAG	Better advertise the ExoPAG at the winter AAS	Mamajek	Y	C		Eric has advertised ExoPAG, its email list, and announcing the ExoPAG meeting, on Facebook (Exoplanet Imaging group, Low-mass stars and Brown Dwarf group). These are the two main hives of exoplanet astronomers on FB
2	JWST	Consider analysis of valuable/sufficient use of JWST time	Kempton	Y	C		Covered in panel at Jan 2018 ExoPAG
2	Masses	Invest in exoplanet masses (RV follow-up)	Still	Y	C		Performed through ROSES call

Reporting Complete at Today's ExoPAG

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Feasibility		Suggestion / Comment	Assigned To:	16	17	18	Current Status
1	PAG Leads	ExoPAG chair invites other PAG leads (planetary etc) to Exopag	Meadows	Y		C	Vikki extended invitations
2	Students	Fund students to attend these meetings	Blackwood, Ciardi	Y		C	ExEPO will fund ~3 for June 2018 ExoPAG, hold special session (chair: R. Jensen-Clem UC Berkeley). ExEP provided website for application, go live Feb 2018
2	ExEPO Resources	Program Office people resources are available free for the community (talks, expertise, working groups, etc)	ExEP	Y		C	ExEPO staff provided for In-Space Assembly TIM, Lynx optical architecture trade study
2	ExoPAG Locations	Hold future summer ExoPAG meetings near conferences for RV, microlensing or transmission spectroscopy conferences (possibly at the extremely precise RV, habitable worlds mtg. in Nov.)	Meadows	Y		C	Yes - Cool Stars is first example
2-3	LBTI	LBTI time is available (options for funding LBTI time)	Hudgins	Y		C	LBTI observing is not funded past September 2018.
2	Lab Astrophysics	Invest in lab astrophysics (opacities for various gases at range of relevant T,P for exoplanet atmospheres)	Hudgins	Y		C	In Astrophysics, the only R&A opportunity is the APRA Program (next opportunity: ADAP 2018, NOIs due 24 Jan 2019). The Planetary Science Division will support Lab Astro work relevant to exoplanet science under the following programs - Emerging Worlds (EW; next opportunity: EW 2019, TBD), Solar System Workings (SSW; next opportunity: SSW 2018, Step 1 proposals due 15 Nov 2018), Habitable Worlds (HW; next opportunity: HW 2018, Step 1 proposals due 15 Nov 2018), Exobiology (EXO; next opportunity: EXO 2019, TBD), and Exoplanet Research Program (XRP; next opportunity: XRP 2019, TBD). Held the NASA Lab Astro Workshop last April (https://www.physast.uga.edu/workshops/lab/) which is a periodic meeting that we convene to provide a forum for discussion current lab astro capabilities and opportunities in the context of the critical data=needs of NASA missions. Next one will probably be in 2-3 years time.
1	Technology	There is a strong path in ExEP to get technology up to TRL 5, but how do they get to TRL 6 - mission?	Siegler		Y	C	The SAT program covers the range of TRL 3-6. In addition, the flight project will typically pick up the TRL 5 to 6 portion in Phase A.
1	Ground	Ground based observations are both supportive of precursor science and can act as an incubator of ideas on how to carry out future missions	ExEP / ExoPAG EC		Y	C	Agreed

In Work / Underway

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Exo-PAG#
Origin

Done / Ongoing	
Action Being Worked	
Uncertain - need status	
Open	

Feasibility		Suggestion / Comment	Assigned To:	16	17	18	Current Status
2	Demographics SIG	Exoplanet demographics group as a SIG	Meadows	Y			Recommend SIG to APAC on 7/23
1	Planetary	Invite Jim Green to visit the Exoplanet Program Office	Blackwood	Y			Meeting held, now re-plan for new director Lori Glaze
2	RV Invest	NASA can systematically solve larger problems than individual university groups. Should be investing in improvements to RV precision, especially solving stellar jitter. Find a way to make a big coordinated effort	Mamajek / Still	Y			Eric attended the recent PRV conference and has submitted recommendations for investments, events, and coordination to HQ for their consideration. NExScl is working on getting access to legacy private PRV data in addition to HIRES and ingesting to archive, opportunity to propose under ADAP
1	Planetary	Invite some of the planetary community to ExoPAG (briefings, panels etc)	Still	Y			invited the Chairs of PhysPAG and COPAG to attend this meeting (neither was able to make it in the end)
1	Other PAGs	Bring other PAG info back into the ExoPAG	Meadows	Y			Ongoing
2	Websites	Consolidate websites (access to the work)	Mamajek	Y			Action: ExEPO will add a page that links to NASA-funded exoplanet opportunities. Due Sept 2018
2-3	TESS Follow-up	More support for groundbased followup for TESS (more telescope time, S. hemisphere RV instrument, funds for community to do the science with these instruments).	Still	Y			NN-EXPLORE, Keck GO, APD R&A programs for observations and analysis, working to find options for S Hemisphere RV, Speckle
1	Communication	Sometimes it's hard to make connections for collaborations or know what the rest of the community is up to. Consider a section of the ExoPAG website for job openings and opportunities for collaboration on research or proposals.	Mamajek		Y		Will provide links to prominent university research. Complete by Sept
1	Other PAGs	There is a strong desire to keep up the cross fertilization between the PAGs especially in planetary. Outer Planets PAG (OPAG) - which includes outer planet moons - Openly invited all ExoPAGers to attend the next OPAG meeting in Hampton VA Feb 21-23, 2018	ExoPAG		Y		We have engaged in proposing (and getting approved) a joint SAG on the Great Observatories strategy with COPAG and PhysPAG, so we are all working together, and Mike Meyer is now our representative on that
2	Citizen Science	Citizen scientists have a lot to offer to our missions and are a good resource that should be pulled into the community. JUNO has done incredible outreach to citizen science groups - how can we tap into that network for exoplanets? Think about ways to include citizen science activities and participation in future ExoPAGs	ExoPAG EC		Y		Consider for January ExoPAG (June agenda was too tight)
2	WFIRST CGI	There may be a concern that WFIRST wont have a PSP for the CGI given that it's a "tech demo". However, there is precedence from Mars Pathfinder for a PSP for a tech demo. Matt Golombek served as the PSP for the Sojourner Rover. We should encourage the appointment and structure of a PSP for CGI based on the Mars Pathfinder experience.	Benford		Y		Per Dominic Benford: <ul style="list-style-type: none"> Community members will have opportunity to join a PSP with a limited number of members. Structure of PSPs, the member roles/responsibilities, and timeline for selection have not yet been determined.

Open Items

Or Status not yet recorded

ExoPAG - Open Discussion		Legend		Exo-PAG# Origin			Done / Ongoing  Action Being Worked  Uncertain - need status  Open 	
Feasibility		Suggestion / Comment	Assigned To:	16	17	18	Current Status	
1	Microlensing	Microlensing: add agenda items, recruit membership	ExoPAG EC	Y				
2	Ground	Invite comments at future ExoPAG for potential impact of ground based observations on space based observations	Meadows	Y			Will do for future ExoPAG	
2	Animations	Produce more animations about current results, missions, etc.	ExEP	Y			ExEP Ready to do so - do we have a community volunteer to work with us?	
3	Ground	Fund complementary ground observations	Still	Y			Request from Martin to the ExoPAG EC. Nasa is space based program. Other agencies fund ground based astronomy. Would be useful to have 1 pager from Exopag, that explains to associate administrator why we are talking about ground based astronomy.	
3	Technology	Technology into ground based observations for starshades etc	Siegler	Y				
3	Spitzer	Spitzer extended again to support TESS followup.	TBD	Y			Describe scientifically, and programmatically, given the last senior review of Spitzer closeout	
1	Other PAGs	Consider attending Venus PAG (usually in November)	ExoPAG		Y			
2	Large Mission Studies	3 of 4 large decadal mission concepts have exoplanet content and as a community we need to work together to make sure all three exoplanet science stories are strong and have the best chance of success through the Decadal Committee. ExEP should facilitate joint meetings or other interactions between the three team to support and contribute to the success of exoplanet science in HabEx, LUVOIR and OST.	ExEP		Y		Completed some (Pause and Learn June 2018, interim report assessment) More can be done: build a comprehensive story, synergy between ground and space. LUVOIR planning November 1-day exoplanet meeting with HabEx, invite OST? Reflect National Academies report (Aug/Sept 2018)	
2	TESS Follow-up	TESS mission data products will have expiration dates - data will go stale. Follow-up observations should be proposed and done within months of detection.	Still		Y		Data released by mission as soon as possible. An extended mission will be its own best follow-up (senior review)	
3	Ground	We need to extend the statistical modeling of the existence of undetected binaries to the population of observed stars with no transit detection. to see more follow up on stars that don't have detection. Suggestion to find ways to do more follow up on targets with no transit detection and encourage the extension of the statistical modeling.	TBD		Y			

Questions for ExoPAG today

1. How can the Exoplanet Program Office help the community?
2. How can the ExoPAG help the community?
3. How can either help YOU in your work?