

March 22

Virtual

PRIMA Community Workshop

Start		title	presenter
8:30am	<i>Session 1</i>	Introduction and Goals of the Meeting	A. Pope
8:50		PRIMA Capabilities	C.M. Bradford
9:30		Summary of Community Survey Results	E. Mills, J.D. Smith
9:50		break	
10:00		PRIMA Working Groups & Community Science cases	PRIMA team, all
11:00		PRIMA Science breakouts	
12:00pm		break	
12:15	<i>Session 2</i>	Science breakout reports & Community Science cases	PRIMA team, all
1:30		Discussion	all
2:45		Wrap-up & Path Forward	J. Glenn
3:00pm		Workshop adjourn	

<https://workshop.ipac.caltech.edu/farirprobe/>

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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 of participants in any form.

Please follow these guidelines:

Behave professionally. Harassment 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 behaviour are expected to comply immediately. Attendees violating these rules may be asked to leave the event at the sole discretion of the organisers without a refund of any charge.

Any participant who wishes to report a violation of this policy is asked to speak, in confidence, to the organizers.

This code of conduct is based on the "London Code of Conduct", as originally designed for the conference "Accurate Astrophysics. Correct Cosmology", held in London in July 2015. The London Code of Conduct was adapted with permission by Andrew Pontzen and Hiranya Peiris from a document by Software Carpentry, which itself derives from original Creative Commons documents by PyCon and Geek Feminism.

Organizers / PRIMA science leadership team

- Jason Glenn (NASA GSFC)
- Matt Bradford (JPL / Caltech)
- Lee Armus (Caltech / IPAC)
- Cara Battersby (U. Connecticut)
- Alberto Bolatto (U. Maryland College Park)
- Brandon Hensley (Princeton University)
- Tiffany Kataria (JPL)
- Margaret Meixner (SOFIA)
- Arielle Moullet (SOFIA)
- Elizabeth (Betsy) Mills (Kansas U.)
- Klaus Pontoppidan (Space Telescope Science Institute)
- Alexandra Pope (U. Mass Amherst)
- Johannes Staguhn (GSFC / Johns Hopkins U.)
- JD Smith (U. Toledo)

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The Astro 2020 Decadal Survey recommended an ambitious program including a new line of \$1.5B probe missions.

The decadal states that two priorities for the first Probe-class mission competition should be a far-IR probe or an X-ray probe.

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From 7.5.3.3 of *Pathways to Discovery in Astronomy and Astrophysics for the 2020s*, a *Far-IR Probe* should address one, or all, of:

- Trace the astrochemical signatures of planet formation (within and outside our own Solar System)
- Measure the build up of galaxies, heavy elements, and interstellar dust from the first galaxies to today
- Probe the co-evolution of galaxies and their supermassive black holes across cosmic time

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Our response to the decadal recommendations:

PRobe far-Infrared Mission for Astrophysics (PRIMA) will be a far-infrared actively cooled space telescope with spectroscopic and imaging capabilities.

PRIMA informed by the extensive study done for the Galaxy Evolution Probe (GEP).

PRIMA is being designed to be an observatory for the whole community.

Community survey and workshop to help define the science PRIMA should do and what capabilities are needed.

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Preliminary PRIMA science working groups (co-leads)

- Exoplanets and solar system (Kataria, Moullet)
- Star and planet formation (Battersby, Pontoppidan)
- Nearby cosmic ecosystems (Bolatto, Mills)
- Galaxy and SMBH evolution (Armus, Pope)
- Dust and metals (Hensley, Smith)

Astrophysical transients will cross-cut several working groups.

Working groups will synthesize input from the community into a set of compelling science questions which will drive the mission design.

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NASA SMD probe opportunity

- \$1B cost cap (exclusive of launch vehicle & Guest Observer programs)
- International contributions welcome, $\leq 1/3$ of cost

Important Dates	
Draft Announcement of Opportunity	June 2022
Announcement of Opportunity	January 2023
Proposals Due	≤ 90 days post-AO
Downselect	Mid 2025
Launch	~ 2030!

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Goals of the meeting

- Hear from the **community** the range of science that PRIMA could address
- Discuss priorities for **science** in each working group given decadal recommendations
- Discuss the baseline **requirements** for the top priority science in each working group

Next steps: Optimize the *must-have* **technical** capabilities for PRIMA to address a diverse portfolio of science

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Stay involved. Join our PRIMA community mailing list now for future workshops and other opportunities to engage:

<https://workshop.ipac.caltech.edu/farirprobe/subscriber>

<https://workshop.ipac.caltech.edu/farirprobe/>

A horizontal banner with a space-themed background. On the left, there are colorful nebulae in shades of blue, purple, and red. On the right, a large, detailed image of the Earth is visible, showing its blue oceans and white clouds. The text is overlaid on the left side of the banner.

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Any questions about the logistics of the meeting

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