Dear members of the astrophysics community,

Following a new directive from the Astrophysics Division (APD), the Program Offices (POs) have modified our strategic technology gap prioritization process to a joint Astrophysics-wide, biennial process. The POs now identify the technology areas requiring development to enable or enhance future strategic astrophysics missions every other year. To ensure that APD invests in the right technologies, we are reaching out to the community to help identify the technology capability gaps between today's state-of-the-art and what will be needed for missions identified by the 2010 Decadal Survey, the 2018 Astrophysics Implementation Plan, and/or the 30-year Astrophysics Road Map.

As the first step in our process, we want to hear what you think are the most important areas for technology development not currently being addressed. If you know of a missing technology gap, please download the <u>technology gap submission form</u>, fill it out according to the instructions enclosed there, and email the completed entry (or any questions) to <u>Thai Pham</u> and/or <u>Brendan Crill</u> by **June 1, 2019**. If you have questions, feel free to email those to Thai or Brendan, leaving enough time for a response and your submission before the deadline.

In parallel, we're asking the HabEx, LUVOIR, Lynx, and Origins Science and Technology Definition Teams (STDTs) to update their technology gaps based on their final reports. With the help and review of the PAGs and the ExoTAC, we will review and (as needed) merge existing gaps and those received from the community.

This summer, the <u>POs' science and technology teams will prioritize the technology gaps according to a list of four criteria</u> published biennially, and shown on our technology websites. Importantly, the joint gap list will inform possible Amendments to the <u>Strategic Astrophysics Technology</u> (SAT) solicitation. Prioritized rankings, along with a description of NASA Astrophysics' technology needs, will be published in a new report, the Astrophysics Biennial Technology Report (ABTR), which will first be published this October.

Please refer to the ExEP Technology Plan Appendix and the 2017 PCOS and COR Program Annual Technology Reports (PATRs) for more information about APD technology gaps. Gaps that were last published in 2017 will be included in the 2019 list (unless they were judged to be non-strategic). If you want to add new gaps, or suggest edits to gaps previously submitted by the general community, please do so. Since the STDTs are expert on the technologies needed for their design reference missions, we will not be accepting community edits of any of their gaps. This is your opportunity to take an active role in shaping the future of space technology for astrophysics, and future scientific breakthroughs achieved by NASA's missions. Please note the June 1, 2019 deadline for gap submission to this prioritization cycle.

APD Program Offices Technologists, Brendan Crill, Opher Ganel, Thai Pham, and Nick Siegler