

March 23, 2022

Dear Vandana and George,

This document reports on the IRSA User Panel meeting held virtually on January 25th and 27th, 2022. The role of the User Panel is to evaluate IRSA's content and services from the user's perspective, advise on the priorities for ongoing/planned activities (given current funding level), and to suggest improvements or new services, not covered in the current work plan. The members of the Panel attending the meeting were: Alexandra Pope (University of Massachusetts Amherst), Klaus Pontoppidan (STScI), Peter Veres (CfA), Bahram Mobasher (UC Riverside), Remy Indebetouw (University of Virginia), David Kaplan (University of Wisconsin-Milwaukee), Alina Kiessling (JPL) and Stephanie Juneau (NSF's NOIRLab). The meeting was scheduled for 8 hours split over two days and consisted of presentations from Vandana Desai, Harry Teplitz, Steven Groom and Luisa Rebull on the various activities of IRSA and live discussion time among the panel. In this letter, I summarize comments and suggestions from the User Panel's on IRSA activities over the past year and the plan for the upcoming year.

The user panel was happy to see the priorities and goals from FY21 were addressed well overall, especially given the challenges due to staffing and the pandemic. The user panel commends IRSA on doing a good job of re-prioritizing tasks given the continued delays and limited resources imposed by the pandemic. The User Panel was pleased to see that IRSA continues to be very responsive to the recommendations from the panel from the previous year. In particular, the user panel was happy to hear that the challenges related to accessing *JWST* data through IRSA are being actively worked on. The user panel is supportive of continuing to work towards developing CAOM + ObsCore compatibility. The user panel was also happy to hear that IRSA has managed to maintain *Spitzer* expertise, and we encourage IRSA to plan for any future staff departures that might result in loss of that expertise. The user panel was very impressed with the progress on the IRSA viewer and spectroscopy visualization tools.

There was discussion at the meeting related to the Astro 2020 Decadal Survey and implications for IRSA. IRSA has begun the process of digesting the recommendations. The user panel commends IRSA as they are already on the right path in terms of making themselves "discoverable". The user panel agrees with continuing to prioritize the back end and making that visible to a front user interface. Several other initiatives at IRSA, such as curating simulated data and cross archive meetings to discuss science platforms, are also moving towards addressing the decadal recommendations. Astro2020 also included a specific recommendation on archive coordination. **The user panel suggests that archival experts and the community should be consulted on how to implement this coordination.** This was suggested by the Astro2020 panel report.

The user panel was informed about new staff hires to fill current vacancies. While the user panel is hopeful that IRSA will be able to fill these positions, we are concerned how prolonged vacancies might affect IRSA operations. **To understand this issue, the user panel requests a breakdown of FTEs and responsibilities of current IRSA staff (organizational chart) at our next meeting.**

IRSA presented their thoughts on the new NASA Open Science initiative (SPD-41) including elements that would be easy to implement and those elements that require more thought. **The user panel suggests that IRSA make an estimate of the work needed to implement the policy fully and**

communicate this to NASA so that adequate resources can be allocated. The user panel hopes that NASA will take the impressions and impact on the archives seriously in how they implement this new initiative.

IRSA discussed some ongoing work towards science platforms. **The user panel is interested in understanding whether contributed software (such as Source Extractor or SED fitting codes) could be installed in a science platform to provide a more complete user experience.** IRSA should not be responsible for the maintenance of external software but the availability of such tools within IRSA or science platforms could further increase the use of archival data. **The user panel also requests an update at the next meeting on what would be required (in terms of FTE time, expertise, resources) to enable sharing in the front-end to enable collaborative science and education/outreach, and whether this is feasible with current IRSA staffing and resources.** Finally, the user panel requests an assessment of how IRSA's work on a science platform and analysis tools overlap or complement those of other NASA facilities (both technically and in terms of use cases), and whether work can be shared or adopted from other sites."

IRSA discussed three themes for their future missions and datasets: wide areas, spectroscopy, and time domain, although science platforms and simulations are also high priority initiatives. **The user panel suggests that IRSA consider carefully the resource balance within these themes given the broad portfolio of heavily-used data served by IRSA.**

The user panel continues to be impressed with the large database of video tutorials and demos for learning how to use the IRSA tools, and that IRSA staff are available to provide live demos to universities/institutes. The user panel felt that these could be valuable teaching tools, especially as astronomy curricula are looking to include more research-based training for undergraduates. **The user panel suggests that IRSA might consider collaborating with some interested university professors to explore how the existing IRSA tutorials and database can be used in undergraduate astronomy courses to provide early training to future astronomers.**

In summary, the panel is happy to see that IRSA continues to be heavily used by the community and is supportive of the activities that IRSA is prioritizing in preparation for upcoming datasets.

Sincerely,



Alexandra Pope

on behalf of the IRSA User Panel members: Remy Indebetouw, Stephanie Juneau, David Kaplan, Alina Kiessling, Bahram Mobasher, Klaus Pontoppidan and Peter Veres