

Dear Colleagues,

The After Sloan-V (AS5) program, expected to begin observations in 2027, will leverage existing and new instrumentation to conduct multiple surveys that advance wide-field spectroscopic science into the 2030s. The proposed AS5 program, which is administered through the Astrophysical Research Consortium (ARC), will transform our understanding of the dynamic Universe (from quasars to stellar transients) providing complimentary spectroscopic follow-up of photometrically varying sources (through the Dynamic Universe Explorer, DUE), investigate the chemistry and dynamics of the Milky Way's unexplored regions (through the Hidden Galaxy Explorer, HGE), map stars and gas at star-formation scales across Local Group galaxies (through the Local Volume Mapper 2, LVM2), and probe the key nucleosynthetic pathways that produce the elements of the periodic table with high precision (through the Atomic Genesis Explorer, AGE). Observations would be conducted from both Apache Point Observatory and Las Campanas Observatory with the possibility of including up to 3 new telescope facilities (including two Northern hemisphere telescope facilities and one Southern hemisphere facility). A more detailed description of the flagship science programs within AS5 can be found in the attached AS5 Executive Summary and at <https://www.sdss.org/future/>.

In this context, we are writing because the planning is quickly advancing and the fundraising for this project has now begun. *In particular, we are seeking the support of the institutions who have interest in this exciting project.*

We are actively exploring possibilities for new/upgraded instrumentation and observational facilities within AS5, which expands upon the infrastructure and expertise built through the SDSS-V. This includes deploying the already existing LVM2 spectrographs on a 2-m class telescope Northern facility and integrating high-resolution echelle spectroscopy into the SDSS instrumentation portfolio. These new aspects of infrastructure within the AS5 program are dependent on sufficient fundraising.

Because of the new hardware, software, and facility elements being developed and considered for AS5, substantial expenses will be incurred between now and early 2027. Money spent on AS5 during this period is seed money that will keep the development of the project on schedule and also will allow funding proposals to be written and credibly backed up with tangible progress.

As such, raising funds now will provide a demonstration of support by a contingent of institutions. That support will be an asset during early discussions with funding agencies and foundations; strong early support from institutions played a crucial role in past iterations of SDSS. Therefore, we are incentivizing early involvement

with the survey. The most generous incentives will be provided for the earliest contributors.

Contributions to AS5 made before August 15, 2026

Every \$10K of seed money contributed gets \$6K of bonus credit.

Contributions to AS5 made between August 15, 2026 and February 15, 2027

Every \$10K of seed money contributed during this period gets \$3K of bonus credit.

Membership in AS5 is formalized through a signed memorandum of understanding (MOU). We expect there to be an initial signing payment due within 3 months of the MOU being formally signed and with regular annual payments starting October 31, 2027. Additionally, we expect the membership structure to be similar to that of SDSS-V. In AS5, we expect full membership to ~\$1250k, consistent with precedent. In SDSS-III, SDSS-IV, SDSS-V the cost per faculty member slot for Associate Membership was set at 20% of a Full Membership. We expect the same for AS5.

Full Institutional Membership includes data rights for an unlimited number of Participants from the institution, and these Participants may sponsor an unlimited number of postdocs or other short-term staff from the institution, and an unlimited number of graduate and undergraduate students enrolled at the institution.

Institutions seeking full membership are strongly encouraged to contribute at least \$50K of seed money (by August 2026) as a sign of commitment for funding proposals. Associate members are encouraged to contribute \$10K per Participant by August 2026.

In-kind effort will be given project credit if the effort is approved in advance by the AS5 Director and if it is identified by the AS5 management team as critical for the near-term needs of the project and addressing specific items in the Director's budget. In-kind effort does not earn seed-money bonus credit. Funds received are kept in a special AS5 account by the Business Manager for ARC. The funds will be spent (or the in-kind work directed) by the AS5 Director (myself) with the oversight of the AS5 Advisory Council. If AS5 is not successful, the remaining balance of the seed funding will be returned on a prorated basis, in proportion to the amount contributed after the final AS5 expenses are paid.

Please reply to the AS5 Central Project Office (email : as5-cpo@sdss.org) if you or your institution wishes to participate, with an estimate of the possible level of cash or in-kind effort, and we can proceed from there.

We hope very much that you are interested in AS5 and that you may be able to help the AS5 project succeed. If you have any questions, please don't hesitate to contact myself and the AS5 Central Project Office (email : as5-cpo@sdss.org).

Best wishes,

Keith Hawkins
After SDSS-V (AS5) Director