

Procedures for Obtaining Membership in After SDSS-3

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This document outlines ground rules for institutional membership in the After SDSS-3 (AS3) surveys. These rules are proposed by the AS3 Steering Committee for the approval of the ARC Board of Governors and are incorporated into the AS3 Principles of Operation. After the initial AS3 collaboration has formed, the Steering Committee will transfer authority to the Advisory Council (AC), a body with representation from the institutional partners. At that point the Advisory Council may opt to modify these rules (again with the approval of the ARC Board of Governors). The scenarios and budgets described in this document are preliminary and subject to modification.

AS3 is planned as a six-year survey, with observations beginning in July 2014 and ending in June 2020. An additional year of support for data processing and archiving will be required. AS3 is comprised of three individual surveys: MaNGA, eBOSS, and APOGEE-2. MaNGA will conduct spatially resolved spectroscopy of nearby galaxies using fiber-fed integral field units and the BOSS spectrographs. eBOSS will use the BOSS spectrographs to conduct cosmological surveys of galaxies and quasars, including targets selected based on variability and X-ray emission via the TDSS and SPIDERS sub-programs. APOGEE-2 will conduct high-resolution infrared spectroscopy of Milky Way stars; APOGEE-2N is the bright-time APO program, while APOGEE-2S is a program with similar instrumentation and science goals conducted in the southern hemisphere from the du Pont 2.5m telescope at Las Campanas Observatory. These surveys are described in the Project Overview document and in the Principles of Operation. Participation in AS3 includes the entirety of the project, as opposed to selections of individual surveys. Hence, membership in AS3 provides institutions with access to all of the data, even if particular institutions or individuals confine their efforts to a limited subset of the surveys.

Membership in AS3

Membership in AS3 is open to individual institutions. Other collaborative buy-in arrangements will be considered on a case-by-case basis if there are compelling and mutually beneficial reasons to do so. An example of an alternative buy-in arrangement is described in the following section on Participation Groups. Membership in AS3 is recommended by the Steering Committee (and ultimately by the Advisory Council) to the ARC Board of Governors. One criterion for membership is a tangible contribution to the construction or operating needs of AS3, as described below.

A Participant at an AS3 institution is understood to be a long-term scientific staff member -- e.g. faculty (tenured and non-tenured), research-track scientist, or equivalent. In all cases, an individual Participant, postdoc, or other staff member is considered to be "at an institution" if at least 50% of his or her salary is paid by the institution.

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. Full Membership requires a total contribution of \$1050K. (However, this number could be adjusted, with approval of the AC and the ARC BoG, depending on the number of partners recruited and the success of other fund-raising efforts. Institutions that join early will earn a \$50K discount as described below.) In most cases this membership fee will be paid in annual installments over the lifetime of the project (see below), with details spelled out in the Memorandum of Understanding (MOU) between ARC and the institution. All partners are encouraged to join as Full members.

To accommodate institutions that cannot commit to a Full membership, Associate Institutional Membership includes data rights for a specified number of Slots, where the cost-per-Slot is set to one-fifth of the cost of a Full membership, i.e. \$210K. Typically a Slot will cover one Participant and one postdoctoral researcher sponsored by the Participant, but this balance may be negotiated in specific cases. The Participants and postdocs at an Associate Member Institution are named rather than pooled. Participation rights can be moved from one researcher to another with the consent of the Director; the Director (and AC if necessary) has the authority to limit over-use of this flexibility. Participants may sponsor graduate and undergraduate students at their institutions who are working directly with them, and they may also sponsor individuals employed by their institution who are within three years of their first bachelor degree (e.g., individuals working for a year before going to graduate school). In addition to these sponsored individuals, postdocs and other professionals whose salary is paid in part or in full by AS3, or whose work is counted as an in-kind contribution, will also have data-access and other participatory privileges so long as they are spending the majority of their time on an activity acknowledged by AS3 to be of general service to the project. A minimum of three Slots is required for an Associate Member Institution to have a vote on the AC, to have a representative on the collaboration Council (CoCo), and to be listed as a member on official boilerplate. However, an institution may join with one or two Slots.

Participation Groups

AS3 will consider membership in the collaboration from “Participation Groups” (PGs), which are collections of active scientists distributed across three or more distinct institutes, departments, and/or universities from the same country. The PG should arrange for a central office that is responsible for signing the Memorandum of Understanding, that will appoint the representative to the AC, that will handle the cash payments, that will ensure that the Principles of Operation are followed, and that will provide a point of contact in all other matters concerning the PG’s membership in the AS3 Collaboration. PGs will be treated similarly to Associate Institutional Members as described above, but with the following incentive: for every 5 paid Slots, data rights will be provided for one additional Slot. As with Associate Institutional Members, each Slot typically covers one long-term staff member and one postdoc, but the balance may be negotiated when 1:1 is not the most appropriate division for the member institutions. A PG will receive a vote on the AC and listing in the official boilerplate if it has at least three Slots. PGs are subject to the same rules as Associate Institutional Members; in particular, membership is based on a list of named Participants (including the postdocs) that can only be changed with the consent of the Director. Participants can work with an unlimited number of students, again as defined for Associate Institutional Members. The payment schedule is the same as for other institutional members, as described below.

Contributions to AS3

Contributions can be cash or in-kind and are measured in US dollars. Only direct costs will be counted as in-kind contributions (i.e., including fringe benefits but excluding institutional overheads). All in-kind contributions need to specifically address items in the Director's budget and must be approved by the Management Committee (MC) and the AC. All such details, including the schedule and value of in-kind contributions, will be elaborated in the institutional MOU with ARC. Hardware and software developed previously for SDSS-I, II, or III will generally not be counted as an in-kind contribution for AS3.

AS3 will have a total of seven payments, each of \$150K. The first payment is due by June 30, 2013 and the second by April 30, 2014, shortly before the start of AS3 operations. Subsequent payments of \$150K are due by January 31 of 2015, 2016, 2017, 2018, and 2019. The total contribution over seven payments is thus \$1050K. For Associate Institutional Members or Participation Groups, all payments are scaled according to the 1/5 factor per Slot, as described above.

Recognizing the importance of early funding to AS3 preparation and the greater risk attached to earlier contributions, any payments made before December 31, 2012 will earn an extra 50% credit. For institutions that contribute at least \$30K in 2012, the deadline for earning this extra 50% credit will be extended to June 30, 2013. For example, an institution that contributes \$30K in 2012 and \$70K by June 30, 2013 will, with the 50% extra credit, have fulfilled its requirement for the first payment, effectively earning a \$50K discount on the buy-in cost. The \$30K threshold also applies to Associate Member Institutions; it is not reduced proportionally to the number of slots.

Each institution's MOU will define the penalties should the institution fail to fulfill a promised payment. Typically the penalty will be that the institution will forfeit their rights to data taken after the default date. Specific situations will be dealt with if and when they arise by the Director, the MC and the AC.

It is ARC policy that all work packages negotiated for support of the SDSS projects (e.g., in which ARC provides funds for hardware or software development or operations support at one of the Member Institutions) require a waiver of overhead rates, with the sole exception of operations at Apache Point Observatory. This policy, of having institutions where work is done carrying the burden of the IDC costs, has been a critical factor in obtaining support for SDSS from funding agencies, foundations, and institutions. It will continue in force for the AS3 project.

Governance in AS3

Full Institutional Members and Associate Institutional Members or PGs with at least three Participants have equal representation and voting rights on the AC and the Collaboration Council CoCo (i.e., one vote per institution or PG) and will be listed as institutional partners on official project boilerplate.