LARGE OBSERVING PROGRAMS ON THE AAT
Request for Proposals Semester 08B

The AAO aims to provide opportunities for Australian and British astronomers to make effective use of the Anglo-Australian Telescope's unique capabilities to address major scientific questions through large observing programs. These large observing programs may use any instrument, or combination of instruments, on the AAT, although the community's particular attention is drawn to the AAOmega spectrograph, which will be the world's most efficient instrument for large-scale survey spectroscopy for some years to come.

In line with previous announcements, the AAT Board (AATB) is issuing this *Request for Proposals (RfP)* for major new observing programs to commence in semester 08B (August 2008 to January 2009) or semester 09A (February 2009 to July 2009). Note, however, that programs extending beyond semester 10A may possibly be subject to modification following the end of the current AAT Agreement in June 2010.

The AATB expects large observing programs to be awarded more than 25% of the available time on the AAT in semester 08B; this fraction of time will be reviewed for subsequent semesters. The AATB encourages ambitious large programs and does not set an upper limit on the fraction of time large programs can be awarded.

All proposals will be evaluated by the Anglo-Australian Time Allocation Committee (AATAC), and should use the standard AATAC form (although with non-standard page limits). The case for the proposed large observing program must include:

1. *A major, compelling and feasible scientific program.* The proposal should focus on key questions that the observational data would address, but should also outline anticipated secondary uses of the data by the broader community. 'Major' in this context will generally mean programs requiring 50 nights or more (there is no set upper limit), possibly extending over several semesters. The science will be expected to be groundbreaking and not just incremental. Proposers need to discuss what their program will achieve in comparison with other on-going and future programs on similar timescales. *The scientific program should be described in no more than 5 pages (including figures, tables, and references).*
2. *An observing strategy* describing the provision of the input target sample, the detailed plan for the observations (number of nights including the standard allowance for weather, cadence of time-critical observations, and total duration of the project), the proposed instrumental setups, constraints on weather conditions or timing of observations, signal-to-noise or other figures of merit required to achieve the science goals, and any special support needed for the observations. The number of targets, required data quality, sensitivity limits and other relevant information should be rigorously justified. Programs requiring multiple visits to the same field should present a strategy for updating targets for optimum efficiency. *The observing strategy should be described in no more than 2 pages.*

3. *A management plan* outlining the collaboration involved in the program, the sharing of responsibilities for scientific management; the planning of observations; the carrying out of observations; data reduction; quality control at each of these stages; data release to the AAO community and the International Virtual Observatory; and finally, data analysis and exploitation by the proposing team. The plan should outline the roles of all team members and how members contribute to carrying out the program. Proposers may also wish to suggest a publication strategy, including the process for determining authorship. *The management plan should be described in no more than 2 pages.*
4. *A project timeline* including the observational and analysis aspects, with milestones and regular reviews by AATAC during the course of the program. Proposers should plan for significant public outreach, and the proposal should explain the broader impact of the project. *The timeline and outreach should be described in no more than 1 page.*

Proposers are encouraged to form broad collaborations across the Australian and British communities in support of their programs; other international collaborators are welcomed. Proposers should also familiarise themselves with the revised procedures for time allocation that will apply from Semester 08B onwards (http://www.aao.gov.au/AAO/astro/newformula.html).

The PIs for large programs will generally be expected to commit to the project as the main focus of their research over the program's duration.

Proposals for large observing programs should be submitted to AATAC by the standard proposal deadline of 15 March 2008.

The number of large programs to be awarded time will be determined with a clear preference for a small number of very high quality programs delivering high impact science as quickly as possible. Within these guidelines, AATAC will award time based on considerations including the relative scientific merit and impact of the large programs and standard programs, the quality of the management, publication and outreach plans, and the phasing of programs to provide a steady rollover of large programs for the longer term. A panel of independent expert referees will be asked to provide comments on the proposals; proposers will be given the opportunity to respond to the referees' comments.

There will be annual opportunities to propose large observing programs at each B semester deadline. For technically difficult or ambitious programs, proposers may wish to request time in the first semester to carry out pilot observations that will demonstrate the achievability of the program's goals and validate its observational feasibility.

Anyone considering submitting a large program proposal should contact the AAO Director (director@aao.gov.au) in advance to discuss their plans.

Matthew Colless
AAO Director

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