SWINBURNE TIME ALLOCATION COMMITTEE FOR KECK (STACK): POLICY AND PROCEDURES

SCOPE

This document was created to develop the terms of reference, policy guidelines, procedures and operational details for our internal TAC – the Swinburne TAC for Keck, or STACK – that will be responsible for allocating Swinburne time on the Keck.

PRIMARY ROLE

The primary role of the STACK is to ensure the maximum scientific outcomes for Swinburne from time on the Keck telescopes.

The Vice Chancellor has invested in Keck time for CAS astronomers with the specific aim of achieving greater research output for Swinburne, particularly high-impact papers in Nature and Science. The STACK members, and all applicants for Keck time, must realize the seriousness of this investment, which is unprecedented in Australia. This is illustrated by the value of each Keck night, i.e. approximately one staff member's salary. Therefore, the STACK's deliberations and decisions must be focused on maximizing the scientific return *for Swinburne*. The STACK is not distributing time on a National Facility; it is instead being given significant responsibility for Swinburne's scientific output and an important say in how a large proportion of Swinburne's research budget is used.

The STACK is reminded that Swinburne's investment in Keck has only a 5 year tenure, ending with semester 2013A. Outcomes of Swinburne's Keck investment will be critically reviewed in 2012 for possible renewal for another 5 year period beginning in 2013B.

FOR OBSERVERS:

CALL FOR PROPOSALS

A call for proposals (CFP) will be issued by the TS once the restrictions on the number of nights available on each Keck telescope and their lunation distribution has been determined. These restrictions will be stated in the CFP and should be carefully considered by proposers. The CFP will also include a strict deadline for submission of proposals. It will include a statement to the effect that **under no circumstances will proposals *received* by the TS after the submission deadline be accepted**. Once one exception by the TS is made then other proposers might ask why the TS cannot make exceptions for them as well. Moreover, proposers asking the TS to make exceptions are clearly placing the TS in a difficult position. The TS will report such requests only to the CAS Director who will then deal with the matter in consultation with the TS.

APPLICANT ELIGIBILTY

CAS staff and postdocs who have a PhD in astronomy/physics may act as PIs of STACK proposals. The PI must have an employment contract that extends a minimum of 12 months beyond the application deadline. Postdoc PIs are required to have a permanent CAS staff member as a CoI who must accept responsibility for the data and outcomes of the observations. Students can apply with an eligible PI. Applicants should consider that Keck observations can not be guaranteed and student theses should be not be designed to rely exclusively on Keck data obtained through the STACK. The role of the proposal in the student CoI's thesis work should be detailed in the proposal. Applicants are reminded of the additional Keck nights available via collaborations with Caltech staff. The role of all non-SUT CoIs must be fully specified in the proposal.

STACK ALLOCATED TIME & OUTCOMES

Any publications related to STACK awarded time must have SUT as an affiliation on the publication. Even if the CAS staff member moves to a different institution, SUT must be listed as an affiliation. It is expected that data acquired via STACK allocated time is to be published in a timely manner and is expected to occur no later than 1.5 years after the last date of observations. The lack of publications for completed projects will considered in the ranking of the PI's and CoIs' future proposals.

PROPOSAL FORM

The proposal form will be in two parts. The first part, an online cover sheet, has to be submitted to the Keck Observatory. The second part will a very simple pro-forma, the PDF version of which should be submitted together with the cover sheet via email to the STACK secretary before the deadline. The Technical Justification section is crucial for evaluating technical feasibility of the proposed science and will be carefully considered by the STACK. A backup program should be summarized in case of bad weather or technical feasibility problems at the telescope.

MINIMUM TIME REQUEST

To be consistent with the Keck Observatory's cover sheet submission system, the minimum time request allowed for applications will be half a night. All applications must ask for multiples of half-nights. CAS applicants should realize that it is difficult to schedule half-nights. It is highly recommended that applications request time in terms of full nights. Applicants are suggested to **only** apply for half-nights in conjunction with other proposers who can share the same night and instrument. This should be spelled out in the different proposals involved in such sharing arrangements. Fewer scheduling difficulties will arise if whole nights are requested. Of course, proper justification of all time requested must be supplied in each proposal.

MAXIMUM TIME REQUEST

There will be no limit to the total amount of time requested by any applicant. It is anticipated that there will be ~7–8 nights available to SUT each semester (plus up to ~3 nights for projects in collaboration with Caltech). **Applicants should carefully consider requests for more than two nights**; of course, all allocations, including ones larger than two nights, will be considered against their likely scientific outcomes for Swinburne.

LONG TERM STATUS

Initially at least, no Long Term Status requests are allowed. If a project is likely to require time in more than one semester, the amount of time required in future semesters should be noted in the proposal and a new proposal should be submitted for the next relevant semester; approval of a proposal in one semester does not imply that it will be favoured in subsequent semesters. **Reasons for future requests should be made clear in the current proposal. Outcomes from previous allocations for the same project should be made clear as well.**

SCHEDULING OF SUCCESSFUL PROPOSALS

Once the final ranking is determined, the proposals which are actually put forward to Keck for scheduling will be determined by the number of nights available on each telescope and their lunation distribution. PIs will be notified of the final results upon the release of the Keck online schedule. However, it is possible that Keck will not be able to schedule some proposals in their submitted form. If such proposals have some degree of flexibility then the PIs and TS may liaise with the Keck schedulers to find a mutually satisfactory solution. It may also be possible to trade nights with other scheduled users of Keck (from any institution). If, after exhausting these possibilities, a successful proposal cannot be scheduled, the TS will inform the STACK members who will then offer the time to the highest rank proposal(s) which can properly make use of the available time.

Considering the above, **it is important that proposers detail the flexible aspects of their proposal**. Failure to do so may mean that their otherwise highly ranked proposal cannot be put forward to Keck for scheduling.

FEEDBACK

Proposers should include all relevant information in the proposal. Any significant information relevant to the proposal that emerges after the proposal submission deadline must be submitted to the TS in writing. No discussion of proposals between proposers and STACK members should be entered into. The TS will distill the STACK comments to provide feedback on proposals but this will be limited to several sentences relating to their clarity, scientific merit and, on a best-efforts basis, their feasibility.

STACK PROCEDURES:

MEMBERSHIP

The STACK will comprise 6 voting members:

- Chair, who will be appointed externally for a ~2.5yr term;
- 2 Level D/E CAS staff members with ~1.5yr term;
- 2 Level A/B/C CAS staff members with ~1.5yr term;
- 1 PhD student from CAS with ~1yr term;

Appointments to the STACK will be staggered to ensure continuity and retention of 'memory', with no more than half of the members rotating off at any given time. A priority candidate list for the External Chair will be determined by senior CAS staff. Volunteers will be called to fill the Level D/E and A/B/C positions. The PhD student representative will be selected by the students themselves via a transparent process (e.g. a vote). All appointments will be confirmed in an anonymous way at a Seniors' staff meeting.

The STACK will also have a non-voting Technical Secretary (TS) with experience in observational optical astronomy. The role of the TS is to liaise with Caltech and Keck on all aspects of the telescopes, available instruments and proposal/scheduling process. The TS will also administer the internal Swinburne proposal process, including the STACK meeting and its outcomes. The TS will undertake other duties related the Swinburne's Keck investment not detailed here.

RANKING OF PROPOSALS

The primary ranking of proposals will be based on scientific merit, in particular **how well the proposal maximizes the scientific outcomes for Swinburne.** Given this primary role, the STACK may support higher-risk/higher-payoff proposals compared to other TACs (e.g. ATAC). Recall that one of SUT's main goals is to increase the number of SUT *Nature* and *Science* publications.

Very limited special consideration will be given to proposals involving student thesis projects, including those that had a significant loss of allocated time (due to bad weather and/or telescope/instrument technical faults) on a previous Keck run allocated through the STACK. The importance of the proposed work in the student's thesis should be described clearly in the proposal. Again, applicants should not design theses to rely solely on future Keck data to be obtained through the STACK. No special consideration can be guaranteed and the primary role of the STACK must take precedence (i.e. to maximize scientific outcomes for Swinburne). No special consideration is envisaged for proposals suffering weather, technical or other losses which do not have significant student involvement.

The STACK will follow a similar process to other TACs: STACK members will read and rank each proposal and submit their scores to the TS prior to the meeting. The STACK will then discuss the proposals in the order in which they were submitted. After discussion, members can alter their proposal rankings. The final scores will be revealed after proposal discussions are complete. The scores will determine the proposals rankings and ties between proposals will be broken by a vote by all STACK members. The STACK Chair will have the casting vote; that is, if there is a tied vote, the proposal for which the Chair voted will be ranked higher.

STACK members will take no part in the grading or discussion of proposals on which they are an investigator, absenting themselves from the meeting when their proposal is being considered. In addition, STACK members may declare that they have a conflict of interests in grading and discussion of any proposal.

Individual STACK member scores and comments will be treated as strictly confidential.

The STACK will not consider technical, editorial or any minor changes to a proposal made after the submission deadline. If important additional information emerges about a proposal after the submission deadline, the PI must have submitted it to the TS in writing *before* the STACK meeting. No information from any other party, including STACK members, may be considered when grading the proposal. The TS will consult with the STACK Chair about the relevance of any additional information provided by a PI and whether it should be considered when (pre-)grading their proposal. Depending on the Chair's decision, the TS may circulate the

additional information, in writing, to all STACK members *before* the STACK meeting. No new information, of any kind, about any proposal may be tabled at the STACK meeting itself. The only exception shall be a PI's request to withdraw their proposal from consideration; such a request must be in writing to the TS.

STACK DECISIONS

The decisions made by the STACK on the allocation of time will be final, and no changes shall be made to the final allocations without the approval of the STACK Chair. This notwithstanding, it must be realized that the STACK outcomes are provisional subject to scheduling constraints by the Keck Observatory. If some proposals cannot be scheduled by Keck, the TS will inform the STACK members who will allocate the available telescope time to the highest ranked proposals which can be scheduled.

PAYMENT OF EXTERNAL CHAIR

The External Chair should be remunerated generously for the time they spend at STACK meetings as well as for time spent in preparation (reading proposals and administration). It should be assumed that this amounts to 3 days per meeting (2 prep, 1 meeting), which at $500 per day will involve a payment of $1500 per meeting (plus travel and subsistence expenses). These are suggested 2010 costings.

ROLE OF CAS DIRECTOR

Prior to the CFP the CAS Director should indicate to the STACK (including the TS), the number of nights available for allocation. Some indication of the likely constraints on lunation (bright/grey/dark) and telescope (Keck I or II) distribution should also be determined. The final allocation from the STACK and special instructions with regard to scheduling should be submitted to the Director for approval. No changes by the director are expected without the approval of the STACK (including the Chair).

ABBREVIATIONS

ATAC: Australian TAC
CAS: Centre for Astrophysics and Supercomputing
CFP: Call for proposals
CoI: Co-investigator
PDF: Portable Document Format
PI: Principle Investigator
STACK: Swinburne TAC for Keck
SUT: Swinburne University of Technology
TAC: Time assignment committee
TS: Technical Secretary

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