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Telescope Access Program

Call for Proposals Semester 2025B

<u> 提交申请截止日期: 2025 年 3 月 20 日 23:59(中国标准时间)</u>

Proposal Deadline: 20 March 2025 23:59 China Standard Time

Proposed Semester: 1 August 2025 to 31 January 2026

TAP Overview for 2025B

The Telescope Access Program (TAP) is now open for applications. TAP is a program to give China-based astronomers direct access to competitive instrumentation on intermediateand large-aperture optical/infrared telescopes. We estimate that the following amount of time will be available in the 2025B semester:

Canada-France-Hawaii Telescope (3.6m, CFHT): 4-7 nights Palomar Hale Telescope (5.1m, P200): 10 nights

重要提醒 Important Notes

所有申请须在 2025 年 3 月 20 日 23:59(中国标准时间)之前提交至 <u>tap.china-vo.org</u> (<u>user guide</u>)。 All proposals should be uploaded to <u>tap.china-vo.org</u> (<u>user guide</u>) before 20 March 2025 23:59 China Standard Time!!!

CFHT proposals should be first submitted through CFHT's Call for Proposal page: <u>https://www.cfht.hawaii.edu/en/science/Proposals/</u>, then!! uploaded to <u>tap.china-vo.org</u> (the official version with CFHT generated proposal numbers) before 20 March 2025 23:59 China Standard Time!!! (CFHT 申请书须含官网生成的 25BS 开头的正式编号)。

CFHT nights are converted from instrument hours as follows : 1 night = 5 hrs WIRCam/MegaCam = 6.5 hrs SITELLE = 7 hrs SPIRou = 7.5 hrs ESPaDOnS. **Please indicate both the hours and nights in your application cover sheet** (e.g. SITELLE 3.5 hrs, 0.5 nights).

P200 proposals should use the latest LaTeX proposal template (v1.3.3), available here (zip).The zip package contains a blank template, a .cls file, and an example proposal. The uploadedpdf(totap.china-vo.org)should!!includetheCoverSheet

(<u>https://sites.astro.caltech.edu/observatories/coo/solicit/2025B/C200.html</u>) at the beginning of the pdf. (P200 申请书须含日期选择的官网首页 pdf)。

CFHT: News and specific notes for semester 2025B

<u>WIRCam</u> The filters available at the start of semester will be Y, J, H, Ks, H2, BrG, KCont, and LowOH1. The broad-band filters Y, J, H, Ks are always available. If you need a narrowband filter currently not in WIRCam, you must provide a strong case justifying why the requested narrow band filter is essential for your science goals, especially pointing out why you cannot use the filters currently available on the filter wheel.

Also note that even if you are awarded time, there is no guarantee your requested filter change will happen; you may be superseded by a higher ranked program also requesting another filter exchange.

For stars brighter than the saturation limits indicated on the <u>Performance Summary page</u>, the Staring Mode may be an appropriate option. Please contact the Instrument Scientist (-=devost=- at cfht.hawaii.edu) for more details.

<u>New SITELLE filters</u> Three new filters (SN4 at Halpha, SN5, SN6) are now available for regular proposals requesting SITELLE. The SN5 and SN6 filters are the property of Dr. Zhenya Zheng. To avoid duplicating scientific projects and goals, teams interested in using these filters must contact zhengzy@shao.ac.cn to initiate a discussion before writing a proposal. Do not hesitate to contact the SITELLE instrument scientist (epinat@cfht.hawaii.edu) for help and more advice regarding proposal preparation with these filters.

Following the analysis of the commissioning data for the new filters obtained in 24A, some recommendations on how to use the filters and prepare observing proposals with these new filters have been prepared. More details are provided on https://www.cfht.hawaii.edu/Instruments/Sitelle/SITELLE new filters.pdf.

We recommend using exposure times per steps larger than 16s for the SN4 and SN5 filters (ideally around 40s) and larger than 8s for the SN6 filter (ideally 20s) when sources have emission lines fainter than 1e15 erg/s/cm2/arcsec2. For brighter sources, this limit can be linearly relaxed dow to 3s at 1e14 erg/s/cm2/arcsec2. We also recommend using a spectral resolution lower than 12500, but it can reach 15000 if needed and if the object does not extend all over the field of view. The number of steps scales linearly with the spectral resolution (Nsteps = dNsteps/dR x R). The number of steps is Nsteps = 0.094 x R for the SN4 filter, Nsteps = 0.108 x R for the SN5 filter and Nsteps = 0.173 x R for the SN6 filter.

The new narrow-band filters must be preferred to larger-band filters in the following cases:

1. Faint object not within the reach of the larger band filters in reasonable exposure times (typically lines with SB<1e16 erg/s/cm2/arcsec2 without any binning). Compared to the SN3 filter, observations with the SN4 filter reach the same depth for total on-source

exposure three times lower, or need the same total on-source exposure time to reach a S/N 1.7 times larger.

- 2. Only a few lines are needed for the scientific analysis (e.g. only Ha and NII for SN4, or only OIII5007 for SN5).
- 3. A high spectral resolution is needed for e.g. kinematics purposes for relatively bright sources.

In order to prepare observing proposals, the S/N or the total exposure time can be scaled as follows:

For the SN4 filter, use the ETC with the SN3 filter, then scale

- the S/N for a given total on-source by a factor 1.7
- or, the total exposure for a given S/N by a factor 1/3

For the SN5 filter, use the ETC with the SN2 filter, then scale

- the S/N for a given total on-source by a factor 2
- or, the total exposure for a given S/N by a factor 1/4

For the SN6 filter, use the ETC with the C3 filter, then scale

- the S/N for a given total on-source by a factor 1.4
- or, the total exposure for a given S/N by a factor 1/2

The time needed per steps can be inferred by dividing the total on-source exposure by the number of steps. The overheads are then estimated by counting 4.1s per step.

Over the whole semester, about half of the nights have the Moon illumination less or equal to 50% (Dark time), and half have the Moon illumination greater than 50% (Bright time). The dark time is split between MegaCam and SITELLE and the bright time between ESPaDOnS, WIRCam, and SPIRou.

If you or your CoI have successful TAP proposals before, relevant records should be added to 'My Report' and 'My Papers' at <u>tap.china-vo.org</u>. **Missing report may affect your proposal's final evaluation.**

Near-infrared observations should request bright time. Any request for dark or gray time for near-infrared observations may cause the proposal to be rejected unless the request is justified explicitly with clear exposure time comparisons.

Please check the available instruments on the telescope sites before applying! Some instruments may not be available in the upcoming semester.

P200-CWI is a PI instrument and you will need to attach the PI's approval along with your proposal to be fully considered.

If scheduling a time constrained proposal (e.g., exoplanet transit), it is good to check with the observatory if the instrument being requested can be scheduled at that time.

The TAC will expect to see updates on any previously approved TAP programs. Please include such updates in the proposal, if applicable. Any proposals that do not list the current status of previous allocations to investigators will be penalized.

Please read the full instructions before submission.

Time Allocation Policy

Starting 2020A, TAP is employing a new time allocation policy, listed as follows:

- 90% of the time equivalent to the total funding will be allocated among member institutes: CAMS, XMU, PKU, THU, USTC, NJU, YNU & SYSU.
- The remaining 10% of the total time are open to all Chinese-based institutes.

Advices for writing proposals

Please avoid these common mistakes in your proposals:

- No justification for the proposed instrument.
- No justification for lunar phase. In particular, any IR programs requesting time other than bright time **must justify very clearly** why.
- No justification for requested image quality/seeing for CFHT queue programs
- No justification for depth and signal-to-noise required for the science. It is **not** sufficient to simply say, "We require 2300s exposure time to reach S/N=10 for g=24 mag" if g=24 and S/N=10 are not also justified.
- No justification for sample size or survey area. Why does the program need 66 galaxies? Why not 50? Why not 20?
- What **specific** science question(s) will be answered by the program?
- No mention of the current status of the field, work done by others, or why the proposal would be a significant advancement over what has already been done.
- **Do not exceed the page limits**, or put information in the wrong sections of the proposal in order to circumvent page limits.
- Please include an update on all programs where the investigators have received TAP time.

Any proposals that makes the above mistakes will have a much lower chance of being accepted.