

LP ADDENDUM

Non-binding letters of intent

Letters of intent (LOIs) of one page in length are to be submitted to CFHT by sending an email to director@cfht.hawaii.edu by February 15, 2022. These letters are an important step in developing an LP Evaluation Panel. The letters should also contain a brief description of the science to be proposed, the instruments requested as well as a first order estimate of the number of nights that you plan to request. A list of collaborators that is as complete as possible is necessary to plan for the evaluation of the proposals, and the page limit can be exceeded to provide it. These letters are required but non-binding (you must submit a letter of intent to be allowed to propose, but you are not required to propose if you submit a letter of intent) and they will not be used for proposal evaluation.

Large Program definition

A Large Program proposal must request at least 50 nights of observing time on CFHT. Within the total time requested, the observing plan must be able to obtain all the requested data in no more than four semesters.

For scheduling purposes, Large Programs are considered as a separate Agency at CFHT. The amount of time allocated each semester is split into A (higher) and B (lower) priority time along the ratio 40%(A) and 60%(B), and LP observations will be carried out with the same A/B observing priority policy as is applied to all other Agencies. This arrangement spreads the risk associated with weather and telescope problems equally between regular and Large Programs. Additionally, the proposed LPs should consider spreading their target RAs throughout the year and requesting observing conditions that are not overly constraining.

In the case of monitoring programs and/or transit campaigns the proposals should disclose the full amount of resources needed including the requested nights but also the external constraints that these observations will pose for observations of other projects and for the overall scheduling of CFHT. This is required in order to provide a fair evaluation of the overall LP requests by the selection committees.

CFHT will provide to the selection committees the proposals technical evaluation reviews including feasibility estimates under normal conditions for each proposed LP, in time for the evaluation.

LP time allocations are not carried forward from one semester to the next. An LP completion policy is in place (and nights are reserved for this) to help attain at least 80% completeness of approved LPs in the case of exceptionally adverse circumstances, when science warrants its application. However, we note that

this should not lead proposers to ask for unreasonable observing conditions or counting in extra resources.

Due to the evolving situation of CFHT and the forthcoming process for transitioning to MSE, it is currently not envisaged that the approved LP projects could extend beyond the 2024A semester, even in the framework of the completion policy. Proposers should be aware that time losses towards the end of the 4-semester period might not be recovered.

The time allocations for this new round of Large Programs will be typically in the range of 82 - 88 nights per semester.

All five instruments are available for this call: MegaCam, WIRCam, ESPaDOnS, SITELLE and SPIRou and more than one instrument can be used in the same proposal.

It is possible that a shutdown of SPIRou might occur during the LP period (most likely in the first year), for up to 8 weeks, in view of its upgrade and cryogenic system maintenance.

Proposal submission

If you already submitted a list of Cols with your Letter of Intent, you do not need to replicate it in Northstar. You need to add any Col that does not appear in the Letter of Intent and you can also add a limited subset of Cols. If you haven't submitted a Letter of Intent, you need to provide a full list of Cols.

Proposals have to use the following conversion for the number of hours per night for each instrument:

- § MegaCam: 5.0 hours/night
- § WIRCam: 5.0 hours/night
- § ESPaDOnS: 7.5 hours/night
- § SITELLE: 6.5 hours/night
- § SPIRou: 7 hours/night

Note that these numbers correspond to averages over the full range of observing conditions. While time requests in Northstar are in hours, the final allocation of a LP, if accepted, will be in nights, in order to absorb any variations of the observing efficiency.

The proposals must contain:

- § A scientific Justification: (up to 8 pages + 3 pages of figures and references).
- § A technical Justification (up to 8 pages) that must include:
 - § Details about the calculation of the exposure time accompanied by the log of the ETC for each target or for a representative set of targets.
 - § An observing plan for the 2022B semester.
 - § A discussion of the program robustness to a reduced data acquisition rate or to evolving instrumental performance.
 - § A Data Management plan - including real-time analysis requirements, a data-analysis plan that includes a description of available resources, proposed proprietary

periods, metadata release or other considerations regarding the propriety of the data or targets.

§ Tables showing the distribution of time among semesters and agencies. See multi-agency proposals section below for details (1 page).

§ The additional detailed informations described below

Targets

RA distribution of targets

Please describe the expected RA pressure of your project by entering a representative target in Northstar in each of the 6 RA bins 00-04 hrs, 04-08 hrs, 08-12 hrs, 12-16 hrs, 16-20 hrs and 20-24 hrs as names and the midpoint of the RA range as the RA coordinate. Also, use the *Comments* field to specify the number of hours per RA bin. You can ignore the *Moon phase*, *Seeing*, *Magnitude*, *S/N* and *Diameters* entries. An example of the targets table needed is given below.

Targets

Field	RA	Dec	Epoch	Runs	Moon	Seeing Lower	Seeing Upper	S/N	Magnitude	Diameter	Comments
16 - 20 RA	18:00:00.00	+00:00:00.0	J2000		bright						2 hrs
00 - 04 RA	02:00:00.00	+00:00:00.0	J2000		bright						3 hrs
08 - 12 RA	10:00:00.00	+00:00:00.0	J2000		bright						20 hrs
12 - 16 RA	14:00:00.00	+00:00:00.0	J2000		bright						35 hrs
04 - 08 RA	06:00:00.00	+00:00:00.0	J2000		bright						5 hours
20 - 24 RA	22:00:00.00	+00:00:00.0	J2000		bright						0 hrs

Example of a table of RA pressure in Northstar (Click to enlarge).

Please describe if alternative, backup targets can also be considered and/or targets for a range of weather conditions.

For moving targets, reasonable spread of RA distributions can be entered.

Target list

A CSV file containing a representative (and, if possible, complete) list of targets must be uploaded at [this URL](#). The columns of the CSV file must be: **Target_name**, **RA**, **DEC**, **approximate exposure time**. This list will likely be used in the future to reserve targets for observations.

Additional required information

Program observability: please specify if the program observable limit is the 8, 12, or 18 degree twilights.

Program mode: in the case of a MegaCam program please specify if the LSB mode of observing will be used.

SNR mode: the SNR mode is currently available on SPIRou, ESPaDOnS and MegaCam. Programs using instruments where the SNR mode is available are required to use it unless scientifically justified.

Program constraints: the proposals need to state explicit constraints. The minimum are IQ, airmass, background, Moon illumination and minimal distance from Moon, maximum extinction in magnitudes, water vapor (SPIRou). Any other constraints useful for the program needs to be stated.

Monitoring: proposals performing monitoring should provide (1) the monitoring rate required; (2) the minimum run cadence and the minimum run length or the run filling factor; (3) any other monitoring constraints.

Transit observations: an estimate of the number of occurrences per year must be given together with the likelihood of completion that must be assessed considering weather statistics and bright/dark time alternance.

Scheduling constraints: any program with scheduling constraints should explicitly state (1) if there is a need for a minimum length of a run; (2) if there is a need to have observations on consecutive nights; (3) if there are requirements for the number of separate runs per semester; (4) if there is a need for observations to be taken over more than 2 consecutive hours (e.g. for transits); (5) if there is a need for a moon phase not normally scheduled for the required instrument (e.g., dark time for SPIRou).

All necessary calibration data outside of the standard CFHT calibration procedures should be requested as part of the original LP allocation. Please contact CFHT for more details on standard calibrations for each instrument.

Proprietary Periods

- Participating community access:

- The default is that all members of a participating community to a LP (i.e. allocating observing time to the LP) will have immediate access to the data through the CADC.

- The PI may propose to retain the usual one year proprietary period for participating community access (or any other period not to exceed one year from the time the last data is acquired, as is the case for any PI program).

- World Access

- The default is the standard one year proprietary period after the end of each semester for the duration of the LP.

- The PI may request, with justification, that world-access be denied for an extended period not to exceed one year after the last data in the LP is acquired.

- Metadata release.

- The default is to release the Exposure Metadata immediately to CADC where it is published on the web.

- The PI may request, with justification, a delay in the reporting of the Exposure Metadata to CADC.

Multi-Agency Proposals

If you intend to submit a joint proposal between two or more Agencies or partner communities, you are required to distribute the total amount of hours requested among the participants. This distribution should be made according to the relative scientific contribution from each community in your collaborative team. In other words, it is up to you as PI to assess this distribution. You must include this distribution with your proposal. The National TACs of any named community will be given that proposal and asked to comment on scientific value and confirm their willingness to contribute time to the Large Program agency.

Selection process

The Large Program evaluation committee will consider:

- The scientific merit of the proposals.
- The feasibility of the observations at CFHT.
- The data and project management plans, and the capability of the team to handle the data reduction and scientific analysis.

Other factors which will be taken into account in the selection process and that need to be addressed in the proposal include:

- The risks associated with incomplete data collection (potentially linked to overloading an instrument or requesting too large a fraction of some observing conditions).
- The willingness of the LP team to provide immediate data access to the CFHT community.
- The potential use for the data beyond the main scientific goals of the LP.
- The potential legacy value of the data acquired.
- The inter-Agency nature of the LP team.