

Guidelines for Submission of a Letter of Intent

This document presents the guidelines for the Letter of Intent (LOI) to be presented to the Advanced Laser Light Source (ALLS) BTAC (Beam Time Allocation Committee).

Title

The Title should be as short as possible and uniquely descriptive of the proposed work.

Research Team

The names and contact information of researchers associated with the research work should be listed (please specify each researcher's institution) as well as a brief description of their role within the project. Also, a contact person must be designated. This person will be responsible for all communication with the ALLS technical staff to plan the experiments.

Scheduling Requirements and Special Requests

The beam line will be attributed by blocks of 1 week. Each block should be considered as 5 shifts of 8 hours for planning purposes. If you would like to function within a different time format, it must be specified in your proposal.

The applicants are asked to give the following information concerning their scheduling needs:

- Number of weeks of beam time requested.
- For academic users, access to the multi-kHz, 100 Hz, or 10 Hz laser, requires user fees of C\$5,000 per week. To access the 2.5 Hz laser, user fees are C\$8,000 per week. User fees are charged within one month after beamtime. You need to provide the address where the bill must be sent when you send you LOI.
- For industrial users, access to the multi-kHz, 100 Hz, or 10 Hz laser, requires user fees of C\$10,000 per week. To access the 2.5 Hz laser, user fees are C\$16,000 per week. User fees are charged within one month after beamtime. You need to provide the address where the bill must be sent when you send you LOI.
- Optimal distribution of the requested weeks of beam time including the minimum number of weeks required for a given experiment.
- Preferred dates for experimental campaign at ALLS and/or any scheduling constraints.

Proposal Type

You must specify in your LOI if you submit a proposal for a single experiment or for a research program.

A proposal for a **Single Experiment** requests a single block of beam time. The results obtained should not necessitate further experiments at ALLS to attain the scientific objective of the project.

A **Research Program** is a series of sequential experiments whose detailed implementation may require the analysed results from one or more of the earlier experiments of the program. Thus, research program proposals depend on a series of visits to ALLS. Applicants proposing a research program must submit an anticipated time line specifying the anticipated needs for beam time within the future cycles. The ALLS Beam Time Allocation Committee (BTAC) will use this anticipated timeline to evaluate global beam time needs in future cycles, to ensure that the proposed program can be completed. This anticipated timeline is to be produced within section 5.

Research summary and preceding work

Explain the research work to be conducted at ALLS and details regarding preceding work. Briefly describe the nature of the work to be done. Indicate why and to whom the research is important, the anticipated outcomes, and its impact to the field of research. This outline should enable the BTAC to evaluate the scientific/technological merit of the research, and to roughly foresee which characteristics of the ALLS beamline will highly influence the success of the proposed experimental work.

Justification of request

In this section, you should answer the questions: Why is the proposed experiment to be performed at ALLS? Why is the selected beamline the optimal one for realizing the proposed experiments?

Requested equipment

A description, as precise as possible, of the proposed experimental protocol and set up must be given.

More precisely, concerning the experimental set-up, applicants should try to provide the information listed below. If some information cannot be provided at the time of submitting the letter of intent, it should be kept in mind for the planning process.

Operating parameters:

- Energy range to be used for the experiment.
- Pulse duration (specify the experiment's sensitiveness to pulse duration and the required precision)
- Repetition rate (need for single shot operation?)

Experimental layout:

- Sketch of the optical layout including the dimensions of the requested optical table.

- “Top-View” sketch of the required laboratory space including optical tables pumps, electronic racks, desks and any other elements requiring lab space.

Electrical requirements: - Number of independent electrical circuits.
- Voltage and maximum amperage of each circuit.

Water cooling: - Water pressure range that can be accepted by your system.
- Connector types that can be used to connect your system.

Furniture: - List the furniture that you would like to have available (computer station, racks, etc)

Optical components: Users are expected to provide all the optical components required for their experiments.

Electronic: - Are you requesting an oscilloscope? If so, what is the minimum bandwidth required?
- Please mention any other electronic equipment you require (welding, multimeter, etc)

Other expectations: Applicants should list and describe everything that they expect to be provided at ALLS in order to ensure the success of their experiments.