

Internal Call for Proposals for ToO/Var Observations with T80S

Period: Semesters 2023A and 2023B (February 1, 2023, to January 31, 2024)

Submission deadline: January 10, 2023

Total time available: 84 hours (42 per semester) of photometric time and (estimated) 40 nights (20 per semester) of non-photometric time for the year 2023

Rationale

As discussed in collaboration meetings and telecoms, there was a need to rethink the strategy for the low- and high-cadence variability (Var) surveys. At the same time, we have been searching for an appropriate way to accommodate targets-of-opportunity (ToOs) that are difficult to schedule in advance. ToOs may include the follow-up of gravitational wave events, gamma-ray bursts, supernovae, etc. Here, we announce the new call for members of the S-PLUS collaboration to propose such ToO/Var projects for observations to be taken during the effective year 2023 (from February 1, 2023, to January 31, 2024).

As our main priority is to complete the Main Survey as soon as possible, ToO/Var programs should assume that the observations will be carried out primarily during nights that are not suitable for MS observations (i.e. bright time, seeing $>2.0''$, transparency $<80\%$ or transparency variations $>10\%$). However, programs that require a limited number of photometric nights to complete their scientific goals will receive full consideration (the number of photometric nights available for this purpose will be limited to 42 observing hours - per semester). Interested proposers should specify the number of non-photometric and photometric nights that are required and especially motivate the need for photometric nights if any. For semesters 2023A and 2023B we foresee the availability of about 20 non-photometric nights each that could be allocated to suitable ToO/Var programs. For ToO targets, we expect to be able to allocate furthermore up to 24 hours of unrestricted, high-priority follow-up each semester. In case the awarded time is not used during the semester, it will be allocated to the S-PLUS Main Survey without further notification.

Proposal instructions

Proposers should send a single pdf proposal to splus@iag.usp.br but are otherwise free to use any proposal format. Proposals should include an abstract + scientific rationale + immediate goals (3 pages max including all figures, tables and references), technical description (1 page max), and a response to the following 6 questions (1 page max):

1. If applicable, what is the expected frequency of events to be observed within the T80S field (2 deg^2)?

2. When the location of the trigger event is only known approximately, what is the uncertainty in the area associated with the target? How many individual pointings are needed to cover the area where the ToO should be located (e.g. in terms of a 90% confidence limit)?
3. What event triggers will be used and how will the ToO/Var fields for the T80S be selected?
4. How was the duration and cadence of a ToO/Var observation determined?
5. How many targets or target fields need to be observed to accomplish the science goals?
6. What is the expected impact of the project beyond just identification/follow-up? In what ways will the T80S data be crucial or unique?

Notes about the proposal evaluation, acceptance and execution process

1. The Ombuds committee will assign a review panel composed of members of the S-PLUS collaboration, possibly including one or more outside experts. Proposals will also be reviewed by the Technical Committee and the Survey Manager in order to assess their technical feasibility.
2. Successful ToO/Var proposals will become an integral part of the S-PLUS survey and thus open to the participation of all collaboration members. The PI of the ToO/Var project will lead the project by following the same rules established by the S-PLUS policies.