LST Cycle 5 – MAGIC Cycle 22 Observation Proposal Guidelines

Observation Cycle and proposal submission

The forthcoming Joint Observation Cycle (LST Cycle 5 / MAGIC Cycle 22) will include 12 observation periods, and will last from **April 22 2027 to April 7 2028**. This Cycle will account for about 900 hours of dark time and 300 hours under moon conditions available for MAGIC and about 750 hours of dark and 200 hours of moon time for LST-1. For LST-1 observation time is provided on a best effort basis given the ongoing commissioning of the LST telescopes. Observing time will be available for MAGIC+LST and for MAGIC-only and LST-only observations without constraints on the fraction of time taken together and separately by the two instruments.

Proposal submission

The proposal submission deadline has been set by **22 January 2027 at 17:00 UT**. During the pre-evaluation of the proposals by TAC members, PIs may receive questions or requests for clarification. PIs will have the opportunity to respond to these comments from **17 to 24 February 2027**. A dedicated TAC F2F meeting to evaluate proposals will take place in Tenerife on 1–5 March 2027.

Telescope configuration

The accepted configurations for this cycle include **MAGIC-only**, **LST-only** and **joint MAGIC-LST-1** observations (no other configurations will be considered). The TAC will evaluate the scientific merit and technical feasibility of the submitted proposals, including the requested telescope configuration. The proposal submission form will include a dedicated field in which proposers are asked to justify the choice of telescope configuration. This information is also needed by the scheduling team.

For joint observations, proposers should also indicate whether standalone observations with MAGIC or LST-1 would still provide scientifically useful results. The same procedure adopted in previous Cycles in case of malfunctioning of one of the instruments will be followed: if a malfunction is expected to last for several nights, PIs who have indicated that standalone observations are acceptable may veto observations in the reduced configuration, in which case the corresponding observation time will not be deducted from the approved time. In case standalone observations are accepted by PIs for joint programs, the observing time will be weighted by a factor of 2 for MAGIC-only and 3 for LST-1-only observations. **The requested observing configuration will not receive any *a priori* weight in the TAC evaluation**; proposals will be evaluated according to their scientific merit and the means required to accomplish the proposed science.

Proposals Observation conditions

The required observation conditions to reach the proposed scientific goal should be clearly specified in the proposal. **If observations of the same target are required under different observing conditions, separate observing blocks should be included in the proposal for each set of conditions**. This applies, for example, to different moonlight conditions or zenith-angle constraints. Thus, if a target needs to be observed both in dark time and under moonlight to ensure coverage of a given period, the proposal should include separate observing blocks for the dark-time and moonlight observations, all within the same proposal.

“Multi-year” proposals

Long-term proposals extending beyond the limits of the cycle are not expected for LST, which is providing observing time on a best-effort basis given the forthcoming delivery of LST-1 to CTAO and the uncertainty concerning future LST observing cycles. For MAGIC there are no such limitations, and MAGIC Cycle 22 can continue to accommodate multi-year proposals. Nevertheless, all proposals will be evaluated and ranked based on the scheduling of Cycle 5 / Cycle 22 only. Given that Cycle 5 / Cycle 22 will most probably be the last cycle involving joint MAGIC–LST-1 observations, particular attention should be given to projects already in execution that require additional observations to reach a scientifically valuable result. The LST and MAGIC Physics Working Groups (PWGs), together with the scheduling teams, should identify projects for which additional observations during this cycle are important to complete the programme. This should not constitute an independent evaluation criterion, but should provide relevant context to the TAC when considering the feasibility and scientific return of proposals.

ToO and trigger information

Proposals involving ToO observations should provide sufficient information on the expected number of triggers, response timescale and observational requirements to allow the Scheduling Team to assess their feasibility.

Physics Working Group science priorities

The LST and MAGIC PWGs will provide science priorities for this Joint Observation Cycle, which should be made available to proposers before the proposal deadline. Proposers are encouraged to indicate whether and how their proposal addresses one or more of these priorities. This input will be considered as advisory information and will not constitute an independent quantitative score or ranking.

The TAC will take into account the alignment of proposals with the WG science priorities; however, scientifically compelling proposals will not be penalized solely because they do not address the identified priority lines. Physics WG conveners will be allowed to participate in the TAC meeting, providing a brief summary of the relevant Physics WG priorities and responding to questions or providing clarifications when requested by the TAC. Further details regarding their remote participation in the TAC in-person meeting will be provided to PWG conveners in due time.