

Direzione Scientifica

Divisione Nazionale Abilitante dell'Astronomia Ottica e IR

Rome, June 13, 2017

Dear colleagues,

with the AOT36 call for GO time at the TNG just closed, covering the period October 2017-March 2018, time is ripe to plan the next phase of the TNG scientific operation.

As discussed recently at the Padova meeting and in other circumstances, the ultimate goal of this phase is to identify the scientific programs that will characterize TNG over the next years. TNG is offering competitive instrumentation, especially in the case of HARPS-N and GIANO, which can be jointly used in the GIARPS instrumental combination.

In the era of mature 8m-class telescopes, and with 40m-class telescopes approaching the event horizon, it is mandatory to define compelling scientific programs that justify the investments that the Italian astronomical community is making to maintain TNG operative and competitive.

At this purpose, INAF plans to open the next call for TNG observing time (AOT 37, for observations from April 2018) also to major scientific programs, extending over several semesters and/or exploiting a significant fraction of the INAF nights.

Characteristics of the “Large/Long” programs

These “Large/Long” programs must be able to address major open problems in modern astrophysics, and to characterize and define the TNG scientific mission in the next years. The basic features of these “Large/Long” programs are:

- All topics in modern astronomy are eligible for evaluation;
- Programs can use any instrument installed on TNG;
- Programs may extend up to 5 years, and use any fraction of the nights per semester (currently of the order of 55 per semester);
- As a bare indication, “Large/Long” programs should require at least 10 nights/semester and a minimum of 40 nights of total time for execution.
- There is no formal upper limit to the total number of nights/semester allocated for all the “Large/Long” Programs, although INAF intends to leave in any case a fraction of nights to normal GO proposals.
- The Principal Investigator (PI) and least 50% of the participants must be affiliated to a Italian Institutions.
- Proposal should include a dedicated plan for observations, data processing and scientific exploitation, previous achievements with TNG or other major telescopes, and a clear commitment from the members of the proposing team to provide the required human resources for the program execution.

- INAF is considering the possibility of supporting the execution and exploitation of the programs with dedicated (albeit limited) financial resources.
- The data reduction/exploitation plan will be part of the proposal and will be matter of evaluation. Public release of the science grade data (through the IA2 archive) is highly supported and encouraged.
- Once approved the successful programs will be granted telescope time for the whole project, pending regular reviews of their progress and results.

Proposals will be submitted during the normal AOT37 phase, with an expected deadline of mid October 2017. INAF will appoint a re-organized TAC for the scientific evaluation of the proposals, and may include in the review process a strategic analysis by the INAF Science Council, if deemed necessary.

Preliminary Notice of Intent

At the only goal of allowing a proper definition of the review process, all the interested teams are requested to submit a simple Notice of Intent (NOI) describing the major features of their program and a reasonably complete composition of the proposing team.

We remark that:

- The submission of a NOI is mandatory to submit the final proposals: only teams that have submitted a NOI will be allowed to submit a "Large/Long" proposal in AOT37.
- NOIs contain only a tentative title, a very synthetic description of the science goal and a preliminary estimate of the instruments and amount of nights needed.
- These NOIs will **not** be evaluated on scientific grounds, but only used to define the selection procedure and the TAC composition.

As such they are limited to a 1-page format, described in the attached form.

These letters of intent must be prepared with the attached form and are due
by July 31, 2017.

They can be submitted by e-mail to INAF Opt-NIR Division <divisione-optnir@inaf.it>.

Adriano Fontana

A handwritten signature in blue ink, appearing to read "Adriano Fontana".