

FRIB Theory Alliance
Guidance for proposing and organizing Topical Programs
September 1, 2019

Topical programs are meant to address particular issues relevant for the science of the Facility for Rare Isotope Beams. Each program brings together up to 30 theorists and experimentalists, with expertise relevant to the topic, for a period of up to three weeks, and produces a specific deliverable to the community, which can be in the form of a white paper, a review paper, a new code, benchmark calculations, etc. Organizers of topical programs should see themselves as conductors of an orchestra, where they get to pick the musicians and the music. The FRIB-TA provides significant autonomy and flexibility to the organizers, who in turn strive for the best scientific outcome for FRIB.

1. Preparing a Topical Program Proposal

The proposal for topical programs should not exceed 3 pages and should contain a description of the scientific project, covering the scientific motivation, the connection to FRIB (for example through the relevance to particular experiments), and specific deliverables. It should also include the names and affiliations of critical experts who are needed for the effort to be successful and who intend to participate in the program for a significant fraction of time.

1.1 Outcome, Scientific program, Participants

There are essentially three elements for a successful topical program: a well-defined goal, a strong scientific program and a relevant group of participants. Whatever the area of focus for the topical program, it is critical that the organizers have a well-determined outcome in mind. Once the deliverable is set, the organizers should identify steps (themes) needed to achieve the goal, as well as the best researchers to address those steps (as well as potential backup participants). Breaking down the general topical into themes is necessary to construct a strong scientific program. Topical programs can bring together different communities to address the same issue from different perspectives, or just bring expertise on the same topic for benchmarking or to reach agreement on future directions. Topical programs may also need a few days dedicated to input from a larger group, more along the lines of a standard short workshop.

Participants in the topical program are determined by invitation, and therefore local participants should be included in the list generated by the organizers. In general, experimentalists should also be included in the list, as they provide an important realistic perspective to the problems being addressed.

Based on the themes, the organizers generate an outline for the scientific program, particularly identifying which themes are covered on which days. The expertise, required to address each theme, gives rise to a list of participants. From the outline of the scientific program, it becomes clear when participants need to be present.

1.2 Specific information to include in the proposal

Please include the following:

- Organizers: name, institution and email (identify the lead organizer).
- Scientific case for the topical program, including a) the impact of the program to FRIB and to the field of low energy nuclear physics and b) why the program is timely
- Goal of the program and the specific deliverables
- Duration and preferred dates: how many weeks are expected for the program and what is the preferred time to run it (usually within the period of May-August)
- Embedded workshop: if there are plans to run a short workshop during the topical program, provide the reasoning why it is necessary and the expected duration.
- A list of potential participants that intend to participate in case the program is selected (name and institution)

2. Organizing a Topical Program

If your program is selected, it is important to determine the dates for the program by discussing with the organizers and the FRIB-TA managing director. Following that, the organizers need to work on: the budget, the invitations to participants, and the scientific program.

2.1 Budget

Organizers work with Gillian Olson to determine the budget. Gillian prepares a default budget for the event that can be adjusted depending on the specific needs. The standard total budget for a topical program is around \$40k provided by the FRIB-TA grant to cover local expenses. Our standard topical programs do not include a registration fee. The organizers should provide to Gillian an estimate of how many people will participate each week, breaking down the total into senior researchers versus student/postdoc. Typically the FRIB-TA covers accommodation and food. For lodging, participants are placed in a nearby hotel (for senior researchers – typical cost \$116/night) or a dormitory room on campus (for postdoc and students – typical cost \$48/night). The food includes AM+PM coffee breaks (~\$30/participant/week), breakfast (usually provided by the hotel, \$8 breakfast tickets to the dining hall provided for rooms on campus), lunches (lunch tickets are provided for the dining halls, except for catered lunches at FRIB; ~\$60/participant/week). One day a week, there is a social dinner at a pre-arranged restaurant (~\$23/participant). For all other days, participants host their own dinners but may be reimbursed later. Note that the typical budget will provide for approximately 24 senior participants who stay for a full two-week program as described above. Larger numbers of participants can be accommodated by, for example, adjusting the composition (student/postdoc/senior) of the program, varying the typical length of stay, or by requesting senior participants bear some percentage of their local expenses, as is the practice at ECT* and the INT. **The budget should be complete and submitted by mid-January.**

2.2 Participants

Researchers have many commitments in the summer and therefore it is critical to get the invitation out to participants as soon as possible. As soon as the budget is prepared and submitted, organizers send out informal invitations to participants to determine their availability. If they can commit, they should block their schedule for the appropriate time. If not, the organizers contact the backup participants to ensure that all the needed expertise will be present at the event. The list of invitees needs to be shared with Gillian so she can proceed with all communication regarding logistics. As soon as the website is ready, invitees will be asked to register. The information provided upon registration enables Gillian to make all the specific arrangements.

In most topical programs, the work developed in each week builds on the work done the previous week. A key function of the organizers is to secure participation in such a way that there is continuity across the weeks of the program.

Remote participation is possible for those exceptional participants that are being used as consultants to a given topic. Therefore, they only need to be consulted for a short period of time (1-2 hours on a given day). However, a normal participant is expected to be physically at FRIB for the duration of the program because long-term remote participation is known to not be effective and is not supported by FRIB IT.

2.3 Talks and discussions

The dynamics of a topical program can contribute significantly for its success. Every topical program contains standard talks (up to 4 a day, often in the morning) and plenty of discussion/working time. Note that the time spent in discussions is considered to be more important than the time spent listening to talks, as it is during that active time that participants move toward the goal and work on the deliverable. The talks should serve only to set the context and the tone for the discussions. Unfortunately, disorganized discussion time can make participants feel that they are wasting their time. Be sure to identify, on a daily basis, key questions to be addressed in the discussion/working time and organize the discussion groups in a manner that is conducive to the desired outcome.

2.4 Space

Topical programs are typically held in FRIB 1221. This room has several projectors and white boards. For the topical programs, the tables in this room are usually arranged in U format to catalyze discussions. In that case, the room accommodates comfortably 30 people. For the duration of the program, the organizers are provided with office space located next to Gillian's office. In addition, there are several open areas in the theory hall that are well suited for small

group discussions. The organizers should encourage participants of the topical programs to utilize these areas to work on tasks related to the topical program.

2.5 Website

Using information provided in the topical program proposal, Gillian prepares a basic website in indico for the event. Organizers are responsible for the scientific content of the website and are given access in order to be able to edit as necessary. Gillian will include additional information as it becomes available: the scientific program, the list of participants, the talks, etc.

2.6 FRIB access and tour

The FRIB building has limited access and all topical program participants will need to carry a visitor badge to enter the building. Before the badge is provided, participants need to be screened for export control, following federal regulations. It is possible that invitees on the participant list are not allowed access unless accompanied by an authorized person. Gillian will work with the organizers to ensure that such situations are handled in timely and sensitive manner.

All participants are encouraged to take a tour of the Facility. The tour will be an integral part of the program and will expose the FRIB-TA members to the most recent technical developments on the accelerator and additional devices on the floor of the Facility for Rare Isotope Beams.

2.7 Timeline

Topical programs are selected at the beginning of the year and typically run in the summer of the same year. This is a fast timescale compared to other organizations such as the ECT* and the INT. It has the advantage that it provides nimbleness. The challenge for the organizers is to act fast to secure the participation of the relevant researchers.

- Goals and outline for the program – December of prior year
- Organizers informed by FRIB-TA about acceptance – first week of January
- Budget submitted - mid-January
- Invitations sent out mid-January with deadline for response by end of January
- Website for event on-line by start of February
- Invitees are contacted to register - beginning of February
- Registration closes – mid-March
- Preliminary participant list – 1st April
- Preliminary detailed agenda – mid-April
- Finalize participant list – four weeks prior to event
- Finalize agenda – three weeks prior to event
- Summary report of the event - late day of the event
- Deliverable – within 6 months of the end of the program