Application Guide - Scientific Workshops at the NITMB

We invite the submission of proposals for scientific workshops to be held at the National Institute for Theory and Mathematics in Biology (NITMB).

A Scientific Workshop at the NITMB is a week-long focused program in a specific area of current research at the intersection of biological and mathematical sciences. NITMB Workshops typically have only a few formal talks; the bulk of the time is allocated for discussions, brainstorming, informal chalk talks, with adequate time for initiating research projects within smaller groups. Workshop organizers are also expected to launch the workshop with a half-day tutorial that provides background to the scientific questions.

When do workshops happen?

NITMB Scientific Workshops take place in Fall (September - December) and in Spring (March - June).

NITMB Support

Scientific workshops receive full administrative and financial support from the Institute, including lodging, travel and local support for all its participants. This allows organizers to focus solely on the scientific aspects of the activities. We expect 15 to 30 invited participants for each workshop, with a typical workshop size of 50-75 people.

How to apply?

There are two stages:

1. **Pre-proposal**: provide the information described in the NITMB workshop template available on the NITMB website at [https://bit.ly/NITMBworkshoptemplate](https://bit.ly/NITMBworkshoptemplate) and submit your pre-proposal to programs@nitmb.org.

2. **Full-proposal**: If your pre-proposal is selected by the Workshop Committee for full proposal submission, you will receive additional guidance from NITMB leadership on developing a competitive full proposal. At this stage, NITMB leadership will work directly with organizers to find the optimal structure for the proposed workshop.

Deadlines

The Selection Committee accepts applications of pre-proposals on a rolling basis. This committee also meets in January, May, and November each year to consider full proposals. The deadlines for submission of full proposals are January 1st, May 1st, and November 1st.

Selection Criteria

The following are factors in the evaluation of scientific workshop proposals.

**Mathematics and Biology in balance**: we seek proposals in topics with potential for generating new mathematical frameworks that will lead to new biological understanding, through theory, data-informed mathematical modeling, and computational and statistical tools.

**Connection with our scientific research themes**: (1) Fidelity and Variation, (2) Fitness and Optimization, (3) Information Processing, (4) Learning and Adaptation, (5) Prediction and Anticipation. More information can be found at [https://www.nitmb.org/research](https://www.nitmb.org/research).

**Workshops structured to enhance communication between domains**: successful proposals lay out a plan for facilitating productive interactions between mathematical and biological scientists.
Workshops that reflect the DEI values of the NITMB: competitive proposals have diverse leadership and proposed participants. Their activities include efforts at broadening participation, and developing future scientific leaders with diverse backgrounds.

Potential to Identify Emerging Research Directions: each winter the NITMB hosts an Emerging Directions Workshop described at [https://www.nitmb.org/convening-activities](https://www.nitmb.org/convening-activities), in rapid response to new biological discoveries and new advances in mathematical approaches. We anticipate that these are often identified for their rapid development during long program activities.

Potential to Seed New Research Collaborations Across Domains: the NITMB supports research collaboration between mathematics and biology that can lead to discovery in either or both domains. Successful workshops lead to research that is showcased in future NITMB Synthesis Workshops described at [https://www.nitmb.org/convening-activities](https://www.nitmb.org/convening-activities), organized by some of the organizers and participants.