Organizing a MRC Summer Conference
American Mathematical Society
2021 Proposal Guidelines

The Mathematics Research Communities (MRC) Advisory Board of the American Mathematical Society (AMS) invites proposals to organize MRC summer conferences focused in all areas of the mathematical sciences and their application. These conferences form the centerpiece of the MRC program, which provides participants a range of activities to develop and supporting their collaborative research and professional development. The Advisory Board and Program Directors welcome proposals covering pure and applied mathematics, interdisciplinary domains, and mathematically-oriented topics of relevance in business, entrepreneurship, government, industry, or nonprofit ("BIG").

Parameters

- **Program goal**: to offer early-career mathematicians—two years pre- to five years post-PhD—a rich array of opportunities to engage in collaborative research, build a network focused in an active research domain, and receive mentoring and career guidance from leaders in that area.
- **Summer conference**
    - Each topical conference runs during one of four weeks during the summer. Tentatively, these weeks are May 30 – June 5, June 6 – 12, June 13 – 19, and June 20 – 26, 2021.
    - For each topical conference, the program provides travel and subsistence support for either 20 or 40 participants.
    - A 20-person conference involves at least 2 and at most 3 organizers; a 40-person conference involves at least 2 and at most 5 organizers. The program provides travel support and an honorarium for each organizer.
    - Most of the time at the summer conference is spent with the participants working on open research problems.

Proposal Content

The proposal should be no more than six pages, and should address the following:

- **Personnel:** List the organizers along with their institutional/company/agency affiliation and contact information. As an ensemble, an organizer team ideally embodies connectivity in a research area, experience mentoring PhD students, diversity (experiential, demographic, institutional type, etc.), and enthusiasm to help mathematically-oriented early-career professionals engage in collaborative research. Addressing what each organizer brings to the team will be key. If the number of personnel listed is out of line with the guidance here, then the proposal will not advance.
- **Scientific Content:** Outline both the scientific background and topic of the proposal, as well as the topic's timeliness. Discuss the sort of academic or experiential preparation participants will need in order to benefit from and contribute to the program. Describe the activities and sample problems with which you anticipate engaging the participants. The advisory board and program directors recognize that the domain of the proposed MRC—whether it is pure or applied mathematics, interdisciplinary, or BIG-problem focused—will influence the form and substance of what they plan for the week.

- **Objectives**: What will the participants take away from the conference? How will the participants' outcomes at the summer conference fit with the overarching goals of the program? How does the topic of the summer conference complement the collection of past offerings?
- **Nuts and Bolts:** Provide a rough outline of the actual daily structure of the summer conference. The MRC format provides five full days (Monday – Friday, morning through evening, with a fallow Wednesday afternoon) for conference activities. This timeline need not account for every hour of every day, but it should give a clear indication of how participants and organizers will be engaged. Strive to minimize the time spent with organizers lecturing and to maximize the time and effort spent with participants engaging in collaborative research.
- **Professional Development:** The goal of this part of the program is to provide useful guidance to the participants regarding the wider professional arena into which their careers are leading. For those taking an academic route, questions regarding job searches, interviews, research, teaching, and work-life balance may be germane. For those considering, or simply wanting to know more about a BIG route, topics related to working in highly-interdisciplinary teams, dealing with intellectual property, producing and executing research and development plans, acquiring management skills, and grappling with ethical questions might be part of the activities. Activities related to professional development might include presentations, panels, mini-workshops, or other formats.
- **Scale and Participant Recruitment:** Do the organizers have a preference for a 20-participant or 40-participant conference? In either case, discuss how many potential applicants there may be and present any ideas you have for raising awareness and recruiting a robust, diverse applicant pool.
- **Other:** Include other relevant information that you feel may not fit into the categories above.

The Advisory Board will evaluate the proposals considering the following questions:

- How will the goals of the MRC program be achieved?
- Is the topic appropriate for such a program (broad enough to attract a diversity of participants, yet focused enough to allow for productive collaborations)?
- Is there a sufficient number of potential participants with the right background and interest to warrant offering the summer conference?
- Will appropriate mentorship and follow-up be provided?

Expressions of interest and questions should be sent to Tom Barr (thb@ams.org), AMS Special Projects Officer, or T. Christine Stevens (tcs@ams.org), AMS Associate Executive Director in advance of the target date for proposal submissions.

Proposals should be submitted via email mrc2021@ams.org, and those received by August 31, 2019 will receive full consideration. The MRC Advisory Board will evaluate proposals in the fall. Pending program funding by NSF, the 2021 programs will be announced in early 2020.