

You Should Organize Conferences and Workshops

Izzet Coskun

Organizing conferences and workshops is a great opportunity for early career researchers to learn recent developments in an area of mathematics, meet senior researchers, and start new collaborations. Running such events can help hone the organizational skills that are crucial to many aspects of academic life, make their CVs more attractive to future employers, increase their broader impacts, and make their grant applications stronger.

At the University of Illinois at Chicago (UIC), we encourage our graduate students and postdocs in algebraic geometry to organize workshops as part of our regular training program. Our graduate students take turns organizing the Midwest Algebraic Geometry Graduate Conference, an annual event where a senior researcher and eight graduate students give talks about their research and another dozen students present posters. Similarly, our postdocs organize a weekend workshop in an area close to their research where they invite several senior mathematicians whose work they would like to master. Our students and postdocs have found these events very beneficial. They have formed new collaborations and made many valuable connections. Serving as organizers helped them integrate into the research community.

Organizing a successful workshop or conference does not have to be onerous and with practice can become streamlined. Typically an organizer has several duties including securing funding, arranging the venue, taking care of the participants' travel and lodging, designing a webpage and advertising, providing coffee and refreshments, orga-

nizing social events, and dealing with reimbursements. Sharing these duties among several people can make the tasks more pleasant and manageable.

It is possible to run a successful workshop with relatively little money (even in an expensive city like Chicago). One can build the workshop around a researcher who is already visiting the department or invite local speakers. One can choose to fund participants' hotel rooms, but not travel. By holding the workshop off-season, one can get cheaper accommodation rates. Many departments also have funding that can be used to organize small workshops. The department may have a Research Training Grant (RTG) or some colleagues may have Focused Research Grants (FRGs), or start up funds, which they may be willing to use to support a workshop. Departments may have visitor funds for inviting an outside speaker. It is also possible to secure conference funding from agencies such as the National Security Agency and the National Science Foundation.

Typically, a conference would take place at the organizer's home institution or at one of the institutes dedicated to running mathematics conferences such as the Mathematical Sciences Research Institute (MSRI), the Fields Institute, the American Institute of Mathematics (AIM), the Mathematical Research Institute of Oberwolfach, Centre International de Rencontres Mathématiques (CIRM) in Luminy, the Banff International Research Station (BIRS) for Mathematical Innovation and Discovery, or the Institute for Computational and Experimental Research in Mathematics (ICERM). Conferences and workshops at such institutes have to be planned well in advance and have to follow the institute's rules. There are competitive application processes. Early career researchers can team up with more senior colleagues to organize a workshop at such an institute. These institutes have experienced professionals who attend to the organizational details and make sure that the conferences and

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workshops run smoothly. The organizers can concentrate more on the mathematical aspects. Running a workshop in one's home institution has its advantages and disadvantages. One has more freedom in structuring the conference, but often the organizer has to be responsible for more of the organizational details. In this issue, Brendan Hassett has an article offering more details on organizing conferences at such institutes.

Each university has their own procedures and idiosyncrasies when it comes to reimbursements, booking travel, and reserving lecture or hotel rooms. Before organizing a conference or workshop, it is best to consult with a senior colleague who has organized successful conferences to learn these procedures. Communicating early and clearly with the academic professionals who handle hotel reservations and reimbursements and giving them accurate information in an organized and timely fashion is crucial both for making their jobs easier and the process run more smoothly.

To advertise the conference it is important to make a website that has all the crucial information such as the dates and venue, speakers, schedule, travel, accommodations, and local information. Advertising depends on the size of the event. If you would like a small workshop only for local participants, emailing the math departments of nearby universities may do the trick. For larger participation, emailing a wider variety of colleagues to direct their students and postdocs to the conference website is necessary. There are conference lists by field. You can reach a wide audience by posting the conference to these lists. If you are organizing a special session of an AMS meeting, you can also advertise in math publications like *Notices of the AMS*. Attracting a diverse group of participants can be challenging. Having a diverse group of speakers, and announcing the conference in lists reaching underrepresented groups can partially alleviate the problem.

A workshop or conference can take many different formats. One of my favorite formats is the weekend learning workshop. When we run these workshops at UIC, we choose a topic we would like to learn about. We invite two or three speakers to give mini-courses and allocate three hours to each speaker. We ask them to dedicate half an hour to a problem session. We often also invite several graduate students and postdocs working in the area to give hour-long talks. Over the years, I have found this format to be a good way to learn new developments in areas close to mine.

AIM style workshops, where speakers introduce problems and techniques in the morning and the participants work on an open problem in the afternoon can be rewarding and result in valuable publications. These workshops are harder to organize. Careful thought needs to go into choosing the problems. They have to be interesting, yet approachable. In my experience, these types of workshops succeed best when researchers from two different areas that do not usually interact come together to solve problems

that are easier from the other perspective. Having too ambitious a research plan or too difficult a problem can make these workshops less successful.

Other typical formats include conferences where speakers are invited to present their work in hour-long talks. I find that having fewer talks and leaving time for mathematical discussions and interactions make such events more beneficial. For example, one can allocate time for people to discuss problems. A schedule too crammed with talks tends to be too tiring for participants and stifles interaction. Depending on the audience and the aims, one can add poster sessions, career development sessions, and problem sessions to the program. One can also mix and match and vary these formats.

I have found organizing Early Career Bootcamps and Math Research Communities to be especially rewarding. I believe participants really benefit from such events. I have made some of my life-long mathematical friends in such conferences. These events can benefit organizers immensely as well. They are a great way of meeting and learning about young mathematicians. They can be a gateway to hiring. Several of the participants have later become my postdocs or colleagues.

Whatever the format, it is crucial to choose the speakers carefully. Having a diverse set of speakers often helps the success of the conference. Having a large percentage of the speakers be good expositors in addition to being great mathematicians will help keep the audience engaged, increase participation, and promote the success of the conference.

When organizing a conference, it is important to be flexible. Something unexpected is bound to happen. I have had a storm wreak havoc on participants' travel schedules, plenary speakers cancel at the last minute, and the department's credit card fail. As long as you try your best, participants will understand. My final advice: always have a spare donut for the campus police when you find the conference building locked in the morning. A big smile and a donut can open many doors.



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Credits

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