

**European Women in Mathematics and European Mathematical Society
Summer school at the Institut Mittag-Leffler
Guidelines for Proposals**

OVERVIEW

The summer school will be held at Institut Mittag-Leffler (IML) in Stockholm in summer 2024. It is being organised by an Oversight Committee (see below) under the auspices of European Women in Mathematics and the European Mathematical Society Women in Mathematics committee, with funding from IML and the support of the EMS. The summer school should be one week in length. Accommodation and meals (breakfast and lunch, plus one conference dinner) will be provided by the Institut Mittag-Leffler for up to 30 participants (including lecturers and organisers). It is expected that up to 2000 Euro will be available from the EWM for travel expenses. Applications for additional funding can be made, for example, to the EMS and to the Clay Mathematics Institute for funding of travel expenses and honoraria for speakers.

The aim is to have a school of high scientific quality on a focussed and exciting current mathematical topic. It should be open to PhD students and post-docs of both sexes, but with a high female participation rate (see details below).

Proposals are normally sent to referees and the final decision will be made by the Oversight Committee. Improvements or changes may be suggested before a proposal is finally accepted. After the final decision, the successful proposers will then take over the responsibility for organising the school in discussion with the IML.

The summer school should be advertised via the EWM network and the EMS in addition to any other appropriate channels.

Proposals should be sent as a pdf file to

Katrin Wendland <wendland@maths.tcd.ie> by **February 28, 2023**.

GUIDELINES FOR PROPOSALS

Proposals (no more than 4-6 pages in total) should contain:

- (1) A brief outline of the topic, its mathematical importance and why it is a suitable topic for a summer school.
- (2) Brief details of the organisers' scientific background, current position and expertise.
- (3) Names and details of at least 2 potential invited lecturers with brief reasons for the choice. Note: Potential lecturers should be asked whether in principle they would be willing to participate but no formal commitments should be made until the summer school has been accepted.
- (4) A list of at least some potential participants.

- (5) A brief outline of how the organisers expect to run the program with a sketched timetable showing a mixture of types of session, see details below.
- (6) An explanation of what organisers will do to encourage an inclusive and productive atmosphere and to encourage female participation.
- (7) Suggestions of three possible referees.

The topic. We recommend that the topic is quite focussed: some set of inspiring conjectures or breakthrough results, but not entire areas, e.g. “Around the Baum-Connes conjectures” would be better than “Recent Developments in Algebraic Geometry”.

The organisers. Organisers should be mainly women. It is desirable, though not essential, to have at least one organiser from a Nordic country. The role of the organisers is likely to extend beyond the usual range of tasks. They are expected to attend and organise the program, and also to raise extra funding as needed. Help and advice about this may be given as needed by the Oversight Committee and EWM. Organisers are responsible for the timetable, for the selection of participants, for encouraging a good atmosphere and for ensuring that everything runs smoothly.

The invited lecturers. Since there are only a few invited lecturers, it is crucial that they are very good, both in terms of mathematics and also in the ability to give lectures at the right level. They should not be asked to give more than 5 lectures, and they should not be expected to play either a further role in the organisation, or too large a role in the afternoon sessions. We recommend that at least half of the lecturers be female.

Note, as the total number of participants is fixed because of constraints on accommodation, any increase in the number of lecturers and organisers means having to decrease the number of participants.

Numbers and dates. Accommodation at IML is strictly limited to 30 onsite participants, and any increase in numbers will have to take account of various practicalities. There is room for 40 people in the seminar room (Kuskvillan) and the dining hall (Gula Villan) if the organisers would like to invite another 10 local participants who have their own accommodation in Stockholm or its surroundings or who will arrange their own accommodation outside the premises of IML with funding from other sources.

We expect that the summer school will take place in June-July 2024. The programs at IML for 2024 are not yet finalised, and the exact date will be settled in discussions between the successful proposers and IML. It would be helpful if proposers indicate both preferred and possible dates for their school.

Female participation. The successful program will demonstrate a much higher rate of female organisation and participation than usual. Nothing is absolutely required, but we recommend that the organisers be female. Although not essential, efforts should be made to identify suitable female lecturers if at all possible. Participants will be selected by the organisers and we expect that at least 50% should be female.

Timetable and lectures. It is up to the organisers to devise a suitable timetable. A sketch plan should form part of the proposal. The invited lecturers should not be asked to give more than a maximum of 5 lectures. Since the number of participants and lecturers is rather small, care will be needed to maintain momentum and not to put too much burden on the invited lecturers. To achieve this, here are some ideas:

Further main lectures: Given by organisers or advanced participants. In contravention of usual conventions, at least some of the organisers could give talks.

Lectures by participants: If time allows, all participants could be expected to give a talk which could be either on their research or an introductory talk to some topic closely related to that of the program. They would have to submit a proposed title and abstract as part of their application to join the program. To fit this in, parallel sessions are a possible option.

Poster sessions: If there is not time for all participants to give a talk, then at least they should all present a (digital) poster. IML do not arrange physical poster sessions.

Question sessions: Participants would have the chance to ask for more explanations of points in the main lectures. These could also be led by postdocs, and/or questions could be answered by a suitable panel.

Problem sessions: Lecturers or others supply problems designed to enhance the understanding of their lectures on which participants will work either singly or in groups.

Work in small groups: One hour of work in small groups on the topic of a preceding lecture or on a mini-project suggested by a lecturer.

Flexible extra sessions: Impromptu sessions arranged by request or as the need becomes apparent, on topics or background material which people want to see in more detail, to be given by any suitable volunteer.

Practicalities and social life. Participants are accommodated in apartments provided by IML onsite in Djursholm. It is mandatory to have the school between Monday and Friday; details to be settled with IML. For additional practical details see below.

Social life. It is important to encourage a good informal and inclusive atmosphere. Ideas on how to do this should be included in the proposal. In order for participants to get to know each other quickly, following a pattern at Oberwolfach, we suggest that everyone is asked to send a short bio and description of their research interests before the meeting, so that this information can be collected and distributed to participants on arrival. IML has launched an app where participants can add information in their profile and chat with other participants. Organisers and participants will be asked to download this app for arrival information, seminar schedule, etc. There could also be some sort of informal session at which people introduce themselves and their research topic at the start of the meeting.

Other suggestions: it is possible to arrange social evenings on the premises of the IML (Gula Villan); successful ideas include pizza and wine or movie nights. An excursion can also be planned for the free afternoon(s).

Referees. The oversight committee (see below) may request referee reports. The proposers are encouraged to suggest up to three names of experts whom the committee may want to approach.

THE OVERSIGHT COMMITTEE

The Oversight Committee has been set up jointly by EWM and the EMS Women in Mathematics Committee in consultation with IML. It has overall responsibility for this call for programs.

- Sylvie Corteel (Paris, France) `carteel@irif.fr` (EMS/EWM Scientific Committee)
- Isabel Fernández (Seville, Spain) `isafer@us.es` (EMS/EWM Scientific Committee)
- Mikaela Iacobelli (ETH Zürich, Switzerland) `mikaela.iacobelli@math.ethz.ch` (EMS WiM Committee)
- Angela Pistoia (Rome, Italy) `angela.pistoia@uniroma1.it` (EWM)
- Sandra Pott (Lund, Sweden) `sandra@maths.lth.se`
- Chair: Katrin Wendland (Trinity College Dublin, Ireland) `wendland@maths.tcd.ie`

FURTHER PRACTICAL INFORMATION

Information about IML can be found on its website

<http://www.mittag-leffler.se/>

The following details, which the organisers will need to check at the time as appropriate, may also be helpful.

Online participation. Participants are welcome to participate online if they cannot travel.

Location. IML is in Djursholm, a small but very rich suburb of Stockholm. It has many small restaurants and a grocery store. The transport link with the city is quick and effective, though with one change: one has to take a bus, then the underground.

NB: they do not accept cash on the bus, tickets must be paid using an international credit card or purchased in advance.

Working space and accommodation. The dining room and the lecture hall at the institute can accommodate 40 people. There is accommodation for 30 people (all apartments are separate). Participants may also arrange to stay in the city, using their own funding. The closest hotel (about 4 km from IML and easily reached by bus) is Hotel Danderyd (Svärdvägen 1, Mörby C).

Wifi. Wifi works very well everywhere.

Meals. IML provides breakfasts, lunches and one conference dinner, all served in the new dining hall in Gula Villan. The accommodations have equipped kitchens so people can prepare their own evening meals. There are also restaurants in Djursholm's center or in Stockholm city center.

Arrivals. The most convenient way of getting to IML from the airport is by taxi. A list of taxi companies can be found in the IML app. The cost for one trip (2022 prices) is around 60 euros. For information on how to get to the institute by public transportation and how to download the IML app, please see the institute web page (www.mittag-leffler.se).

Social activities. The IML organises and provides a conference dinner. For additional social activities, here are a few possibilities for excursions:

- a boat trip to Stockholm - easy to organise and very convenient in summer
- the sculpture garden Millesgården www.millesgarden.se
- boat trips on the coast/to the islands (a day may be needed).

NB: The institute staff has little time to assist in the organisation of social events but is happy to help provide suggestions. Some events can be organised ad hoc. For example, there are so many boats during the summer that the group could just meet and go on a trip, without reservation.