

LMS Research Schools

for Research Students and Early Career Researchers

Notes for Organisers

The principal aim of the programme is to provide training for young researchers in core areas of mathematics. Students and post-docs can meet a number of leading experts in the topic as well as other young researchers working in related areas.

LMS Research Schools builds and enhances the long series of Research Schools previously run in partnership with the Clay Mathematics Institute and the short courses previously supported jointly by the LMS and the EPSRC. With funding of up to £20,000 for each school the series aims at the highest international standing of these research schools allowing for support of both international lecturers and participants.

The main criteria for funding are the topicality and the mathematical significance of the course material, the general alignment with the mission of the LMS, the likely demand for places both nationally and internationally, and the standing of the proposed lecturers in the international mathematical community.

We welcome proposals which have academic validity but vary from this template, either in style or number of attendees. Research schools may be organised by one or more Research School organisers.

The Heilbronn Institute (HIMR) may also contribute funding for the Research School in the expectation that there will normally be at least 20 UK participants. Where there is competition for places, and subject to funding and other practical constraints, participants will be selected on merit only. If at any stage it seems likely that it will be difficult to meet HIMR's expectation, then you should alert the LMS.

1. Research school Structure

A typical Research School should:

- Have material accessible to first-year students and benefit all research students
- Have a broad topic to attract at least 30 graduate students: Places may be offered to graduate students, postdoctoral assistants, as well as mathematicians working in industry.
- Run over five working days
- Run three intensive lecture courses:
- 1 hour per day for each lecture course.
 - At least 1 lecturer (and normally more) should be from an institution(s) other than the host institution; international participation is encouraged
 - Reading lists, model solutions and printed notes are optional but have been requested by students on past courses

○ Previous events have also offered successful panel Q&A sessions for the students with the lecturers.

- Offer (at least) one guest lecture by an eminent speaker
- Have a maximum of 18 hours of lectures
- Have daily tutorial sessions:
- Run by 1 postdoctoral assistant per lecture course.
- May include exercise sheets
- Discuss problems and questions from the lectures
- Offer a social event:
- Either a dinner
- Or an afternoon excursion

The LMS and the Clay Mathematics Institute would be keen to publish high quality lecture notes that may be produced for the research school or after the lectures have been delivered.

2. Outline-Proposals

Research School outline-proposals will be sent to expert referees and considered by the LMS Research Meetings Committee. The main selection criteria will be the quality of the research school and demand for the research school.

Outline-proposals should be submitted normally not less than 12 months before the proposed research school date and should discuss:

- The general mathematical area of the proposed Research School and its importance.
- The aims of the Research School, its appropriateness to the Research School programme and the likely level of demand for the Research School.
- The names and affiliations of the lecturers, titles of their courses and brief syllabuses. The LMS expect that the organisers of the LMS Research Schools will invite both male and female speakers. If no female speakers have been invited, you must give reasons.
- The provision for tutorial support.
- Consideration should be given to the provision of mechanisms to enable participation by people with children or family responsibilities. The full statement of the LMS policy on Women in Mathematics is available at:
http://www.lms.ac.uk/sites/default/files/Mathematics/wim_statement.pdf

It is understood that some material might require a different structure than that outlined in Section 1; proposals that do not follow this model rigidly will still be considered.

Outline-proposals should be no more than two A4 sides in length.

Before submitting:

Organisers are welcome to discuss informally their ideas with the Chair of the Research Meetings Committee (RMC.Chair@lms.ac.uk)

3. Finance

The LMS Research Schools are funded by both the LMS and up to £20,000 of funding is available for each Research School. The Heilbronn Institute (HIMR) may contribute a further £5,000. Note that administrative costs incurred by the LMS will be met separately.

Once an outline proposal has been approved a detailed proposal including a budget will need to be prepared by the organiser and agreed with the LMS. The model budget below is intended as guideline; there is flexibility between the budget lines.

Expenditure

Item	Average Unit price	Quantity	Amount
<i>Honoraria:</i>			
Main Lecturers	£1000	3	£ 3,000
Organiser(s)	£1000	1	£ 1,000
Guest speaker	£ 100	1	£ 100
Post-Doctoral Tutorial Support (1 tutor per lecture course)	£ 500	3	£ 1,500
			£ 5,600
<i>Travel and Subsistence - Lecturers:</i>			
Accommodation and Meals	£700	3	£ 2,700
Travel Expenses			£ 1,000
Guest speaker	£200	1	£ 200
			£ 3,900
<i>Travel and Subsistence – Students/Early Career Researchers:</i>			
Accommodation and Meals	£400	40	£16,000
			£16,000
<i>Other costs:</i>			
Excursion and conference dinner			£1,500
			£1,500
		Grand Total	£27,000

Income

Category	Registration Fee	Average	Amount
PhD student	£150	30	£ 4,500
Early career researchers*	£250	10	£ 2,500
			£ 7,000

**Defined as within five years of completing their PhD.*

It may be appropriate to have a variable charge for participants in each category. A higher charge may be appropriate where participants have access to funds; where this is not the case, it may be appropriate to lower or waive the fee. It is expected that participants from industry pay fully for their accommodation and subsistence as well as a registration fee of at least £250.

Research School organisers are encouraged to seek funding from other sources to contribute to the cost of the research school. The LMS should be notified about any additional funding with details of the amount, purpose and any conditions of the additional award. This is to ensure that any conditions are compatible with the aims of the LMS so that the sponsor may be acknowledged in the publicity of the research school.

4. Practical Information

Once a detailed research school proposal and budget has been approved by the LMS, the LMS Administrative Officer will liaise with the research school organiser to discuss the precise practicalities of finance and administration.

The **organiser** and his/her institution are responsible for:

- planning and organising the research school
- communicating with the speakers
- making local arrangements including accommodation
- working with the LMS to prepare posters for publicity. HIMR also expects that its support should be acknowledged in the information sent to course participants, and in any advertising for the Research School.
- publicising the research school as widely as possible in the UK and overseas
- setting up a research school website, providing information on the research school, the application procedure, programme, accommodation etc
- assessing applications for places and informing the LMS of decisions within one week of the application deadline
- submitting invoices from the institution for accommodation, meals, room hire etc within two months of the research school end date
- producing the final report for the research school.

Reports should include:

- specific aims of the research school and the extent to which these were achieved
- a copy of the programme including lectures and other academic activities
- a list of participants with their affiliation
- results of a participant questionnaire – see below

The report must be submitted within two months of the research school end date. Please note the Organiser's honorarium will not be paid until the report has been received.

The **LMS** will:

- work with the organiser to prepare posters and publicity
- publicise the research school as widely as possible
- set up online application forms
- send applications for places to the organiser to assess
- send out offer letters to candidates
- register candidates
- collect fees
- send a final list of participants 10 days prior to the start of the research school
- set up an online questionnaire and email participants with a link to the questionnaire
- send the organisers a summary of the questionnaire results two weeks after the research school end date
- prepare the final financial statement.

5. Timetable

The following proforma timetable may be helpful:

- *X – 18-15 months*
 - Outline proposals received
- *X – 15 -12 months*
 - RMC of the LMS considers outline proposal and identifies referees.
 - Referees' reports considered by RMC of the LMS.
 - Research school approved by RMC in principle
 - Discussion of detailed proposal and financial arrangements

- LMS sends organiser official offer letter
 - Research school Organiser makes local arrangements.
- *X – 12-6 months*
 - LMS liaises with Research school Organiser re poster and publicity
 - LMS and Organiser publicise Research school as widely as possible
 - Research school Organiser sets up research school website
 - LMS sets up online application form
 - LMS opens application form
- *X – 12 weeks*
 - Application deadline for participants on the research school
 - LMS collates responses and sends them to Research School Organiser.
- *X – 10 weeks*
 - Research school Organiser sends LMS list of accepted participants
 - LMS sends offer letters and payment forms to participants
 - LMS registers participants and collects fees
- *X – 6 weeks*
 - Payment deadline
 - LMS chases outstanding payments
- *X – 2 weeks*
 - LMS sends Research school Organiser final list of participants.
- *X – 1 week*
 - LMS sends Research school Organiser Expenses forms to distribute to speakers/tutors
 - LMS sets up online feedback survey
 - LMS notifies Research school Organisers of any last minute changes to list of participants
- *X*
 - Research school happens!
- *X + 1 week*
 - LMS sends online survey link to participants
 - Research school Organiser sends/ensures expense forms and invoices are sent to LMS
- *X + 2 weeks*
 - Online survey closes

- LMS sends results to Research school Organiser
- $X + 1$ month
 - LMS receives and pays all invoices
 - Research school Organiser sends LMS final report and expense form
 - Once final report received, LMS pays honorarium to Research school Organiser

Queries regarding these Notes for Research School Organisers should be directed to research.schools@lms.ac.uk