

Editorial

Manuel Castellet (Barcelona)
Chairman of ERCOM

ERCOM is a committee of the European Mathematical Society created in 1996 consisting of Scientific Directors of European Research Centres in the Mathematical Sciences, or their chosen representatives. Only centres in which the number of visiting staff substantially exceeds the number of permanent and long-term staff and that broadly cover Mathematical Sciences are eligible for representation in ERCOM. The eligibility of centres is decided by the EMS Executive Committee.

The aims of ERCOM are to contribute to the unity of Mathematics, from fundamental to applications, with the purpose of constituting a forum for communication and exchange of information and fostering collaboration and co-ordination between the centres themselves and the EMS, to foster advanced research training on a European level, to advise the Executive Committee of the EMS on matters relating to activities of the centres, to contribute to the visibility of the EMS and to cultivate contacts with similar research centres within and outside Europe.

The 24 centres at present represented in ERCOM have different working and organisational structures, they are also different in size and scope, but they can be grouped in three different classes, as centres mainly for meetings, centres without any permanent researchers, only visitors and post-docs, and centres with a small permanent staff and a large number of visitors. They broadly cover the European Area, from Russia and Sweden to Portugal and Israel. A Chairman and a Vice-chairman, at present myself, as Director of the Centre de Recerca Matemàtica, and Kjell-Ove Widman, Director of the Institut Mittag-Leffler, co-ordinate the annual ERCOM meeting and the other initiatives proposed by the ERCOM members. Sir John Kingman, Director of the Isaac Newton Institute, acts as link between ERCOM and the EMS Executive Committee.

The Editor-in-Chief of the EMS Newsletter, Martin Raussen, recently offered to the ERCOM institutions the opportunity to present themselves in order to give the readers an idea of how they might use the possibilities offered by the centres. EURAN-DOM, Eindhoven, presented itself in the June issue of the Newsletter and the Centre de Recerca Matemàtica (CRM), Barcelona, is doing so in the present issue.

As Peter Hilton already wrote twenty years ago "A research institute is at least two things
EMS September 2004

at the same time: it is a building and it is an organisation of people working together and dedicated to the pursuit and support of research. But at its best it is more. It starts life as an idea in the mind of one or more persons, of insight and imagination, and then lives and grows by spreading the spirit, imbued by their founders, through the hearts and minds of all those benefiting from its presence and contributing to its future".

In mathematical research, exchange of ideas plays a central role and needs a deep human contact. A contact which is the true mathematical laboratory, and, as Friedrich von Siemens said at the end of the nineteenth century, "Laboratories are the fundamental basis of knowledge and power". The high degree of abstraction of mathematics and the compact way it is presented need direct personal communication, since mathematics is an attempt to develop tools that can be used to achieve a better understanding of the world's measurable aspects and to identify processes that appear in very different natural situations but that are essentially analogous.

But mathematics, apart from this, is a truly international science, perhaps the most international of sciences, since, compared with other disciplines, it is based less on the use of instruments and more on a strong human contact. This is where the research institutes play a crucial role, allowing not only the exchange of ideas between specialists in the same field, but also profound and sometimes surprising links between different lines of research.

In order to foster collaboration and co-ordination between the European research institutes and to provide communication and exchange of information, ERCOM meets yearly, usually by March, in one of the member institutes. Since the 1999 meeting in Cambridge the Administrators have been invited to discuss separately and jointly with the Directors matters of their competence.

Several topics are considered for discussion in the meetings: The European Research Area and the presence of Mathematics in the Framework Programmes of the European Union, the annual call for post-doctoral grants by the European Post-doctoral Institute for the Mathematical Sciences (EPDI), the situation of Mathematics and the mathematicians in Eastern Europe, the INTAS programme, the Digital Math Library, issues arisen from the EMS Executive Committee, etc.



In particular, ERCOM has established an exchange programme for short-term visits of post-doctoral fellows from one ERCOM centre to another, flexible and capable of adapting to different centres and situations, the main goal being to stimulate the exchange and the increase of knowledge and to create synergies enriching research.

The Administrators have prepared a report on the percentage of women doing research in the ERCOM centres. There are about 14% of female researchers conducting long term visits and an average of 16% female researchers conducting short term visits in the ERCOM centres, while, on the other hand, the administrative staff is mostly female and the directorate is mostly male. Last March in the Aarhus meeting the following resolution was adopted: "ERCOM encourages its members to take actions to facilitate the presence of women in their scientific activities, and to collect data regarding the number of applications from female researchers received and approved".

ERCOM, as a committee of the European Mathematical Society, wishes and has the capacity to act as one of the EMS means of scientific outreach, fostering the presence of mathematicians in the new emerging multidisciplinary research domains. With this aim we are preparing a proposal to be submitted to the European Commission as a NEST Support Action through a Co-ordination Action instrument, with the main objective of designing curricula and finding ways to train researchers into emerging specialities of Mathematics, linked especially with System Biology, Neuroscience, Risk Assessment and Data Security, and identifying future research opportunities on the interface between Mathematics and suitable areas of Medicine, Industry and Social Sciences.

A home page (<http://www.ercom.org>), from which you can reach that of each ERCOM centre, provides information on the ERCOM initiatives and, in particular on open positions offered by the centres and scheduled conferences and training courses.