



Newsletter 22

Edited by Sara Munday (University of Bristol, UK)
and Elena Resmerita (University of Klagenfurt, Austria)

2013/1

2013 – The Mathematics of Planet Earth

This issue is partly dedicated to the "Mathematics of Planet Earth" celebration under UNESCO patronage during 2013. The event has been initiated in Canada, from where it has widely propagated, currently covering several continents. Its aim is to emphasize the ubiquitous role of mathematics in everyday life. At the dedicated website <http://mpe2013.org/> one can find not only research related events, but also a teaching side, where a variety of problems that can be dealt with in schools is available.

An EWM initiative in this context is the forthcoming summer school "Mathematical Theories Towards Environmental Models", at the Abdus Salam International Centre for Theoretical Physics – ICTP, Trieste, May 27th – June 1st, 2013. The school webpage is <http://europeanwomeninmaths.org/activities/summer-school/women-in-mathematics-summer-school-ictp-2013>

We point out next other activities related to MPE in Europe and later in the newsletter we include an interview with the event's initiator, Prof. Christiane Rousseau.

MPE Seminar, Mathematics Department, University of Warwick, U.K., 27th February 2013

We [Department of Mathematics, University of Warwick – Ed.] are planning to have a series of MPE Seminars in 2013. The first one was given by Prof. John C. Baez from University of California/Riverside, who spoke about 'The Mathematics of Planet Earth' (see the abstract below). To save CO₂, John did not actually come to Warwick. Instead, using our newly equipped high-tech Taught Course Centre room, we played a previously prepared video, which is the Public Lecture John will give at the British Mathematical Colloquium this April. John then answered a wide range of questions from the audience via Skype. This format worked well and everyone felt it was very successful. The event was attended by staff members, postdocs and Ph.D students.

The seminar has generated a lot of hot debate on what mathematics may look like in the years to come. Some of us think that internet/computational data will become much more central. Anyone interested can play John's video, which gives a historical review, from Agricultural Revolution to Industrial Revolution, on the importance of mathematics to civilisation. We are now in the Digital Revolution, to which mathematics has contributed. We hope that mathematics will have positive effects on the new revolution, in particular contributing to solving the global climate challenge.

The video can be found at

<https://johncarlosbaez.wordpress.com/2012/10/31/the-mathematics-of-planet-earth/>

Here is the abstract of John's talk:

The International Mathematical Union has declared 2013 to be the year of The Mathematics of Planet Earth. The global warming crisis is part of a bigger transformation in which humanity realizes that the Earth is a finite system and that our population, energy usage, and the like cannot continue to grow exponentially. If civilization survives this transformation, it will affect mathematics, and be affected by it, just as dramatically as the agricultural revolution or industrial revolution. We cannot know for sure what the effect will be, but we can already make some guesses.

Dr. Xinyu He

Mathematics Department

University of Warwick, UK

MPE in France

An interesting blog started in January 2013 in France, with a new entry each working day on topics connected to mathematics of the Planet Earth. The website is <http://mpt2013.fr>

Report from Mathematics-Computing-Education (MCE) conference, Pushchino, Russia

The MCE conference took place from the 28th of January to the 2nd of February, 2013. It was organised by the interregional public association "Women in Science and Education" (AWSE), in conjunction with various Russian academic institutions. Before I begin the report, I would like to extend my sincere thanks to Maria Teryokhina, who accompanied me to many talks and workshops and acted as translator for much of what was going on. I would have been utterly lost without her! She is a student of journalism and is compiling her own report on the proceedings, including an interview with myself, about the EWM and what we hope to achieve here, which will be broadcast on her university radio station and also a radio station in Moscow.

The conference was opened by a presentation by Prof Galina Riznichenko (pictured on the right, below) in which she talked about some of the history of the conference and the organisation ASWE. I conducted an interview with Prof Riznichenko, which is included in this newsletter.



Galina Riznichenko (right)



My presentation in the main hall, being translated by Maria

Later that first afternoon, a highlight was the talk given by Nikolai Rosov, on the topic of mathematics education. His opinion is that there are many people in Russia working with children who are talented in mathematics. However, only 5% of students can be classified in this way. The remaining 95% can be split into three groups, namely, those students who are generally good or excellent in all subjects but show no particularly high aptitude for maths, those students who hate mathematics but are generally good in at least some other subjects and, finally, those students who simply hate all subjects. Prof Rosov wants to see programs instituted to work with these less talented people. There is a lot of negative social connotations to contend with before this will happen, but he feels that these vast majority of students should also be respected.

There is a problem with teaching in Russia today, a problem which will no doubt be familiar to readers from various other countries, that of "teaching to the test". In other words, the new state exam system is purely focused on results, not on understanding. Teachers give formulae to be rote learned and parroted back in examinations. Many people are unhappy with this situation and would like to see it reversed, but it seems as though getting rid of the new exam system is not an option. One possible solution would be to concentrate instead on real-life problem solving tasks and developing geometric intuition, as opposed to an emphasis on more abstract concepts. This would need an entirely new system and entirely new books.

This talk generated very lively debate (as was expected – the speaker admitted as much in his opening remarks). Many people in the audience were of the opinion that the main problem for teachers was, in fact, lack of time to teach abstract concepts thoroughly. According to Maria, another problem is the very low salary for teachers, sometimes as little as 7000 roubles (approx. €175) per month.

On Tuesday afternoon, I joined in a workshop on gender issues as part of the Education section. I gave the first presentation, to an audience unfortunately diminished by an influenza epidemic in Moscow. I talked about the aims, the organisational structure and the history of the EWM, aided by the splendid presentation "A pictorial history of EWM" prepared for the general meeting

in Barcelona, 2009, by Bodil Branner and Caroline Series, which I updated to show our activities since then as well. I also passed around flyers with our website details on and showed copies of some recent newsletters. A discussion followed, which began with some questions about the state of women in mathematics in my country (currently the UK) and Europe more generally, and what, in my opinion, are some of the problems we face. This morphed into a sort-of nature-vs-nurture debate in connection with a lack of women in, particularly but not only, computer science departments.

Several more presentations were given, unfortunately for me all in Russian, but Maria helped me to get the gist of what was going on. Prof Irina Gudovich told us about research done on the status of teachers in four Universities in Voronezh, the city where she works as an Associate Professor of Mathematics. The answers from 500 lecturers were broken down along gender lines, with a few differences being noted.

At the end of the session, I was fortunate to have a chance to talk to the President of the Association of Women in Science in Ukraine, Nadezhda Dmitrievna Gernet (pictured below). She made a statement about problems still besetting women trying for careers in science, particularly regarding unequal rights when it comes to children and divorce. She is of the opinion that gender studies in mathematics as a discipline is not nearly well enough developed, there seems to be more private opinions and less robust statistics. (I am inclined to agree, which is why we are trying our best to gather and encourage others to gather as detailed statistics on women in mathematics throughout Europe as we can.) Her association has a 13 year history. They are involved in many topics, possibly too many, as she says it is hard to produce work on all subjects. Finally, Prof Gernet made it clear that a representative from the Ukraine would be very happy indeed to attend an EWM conference, the problem standing in the way is a financial one. It is very difficult to raise the funds to support foreign travel.

On Wednesday morning, I displayed two posters with information about EWM as part of the poster session in the education session. Many people came to look at the posters and ask questions about our organisation and how I came to be at the conference. Later in the afternoon, I had time to have various private discussions about AWSE and attend a few of the mathematical talks, before giving a talk on EWM in the main conference room (again translated by Maria).

Before this presentation, I talked with Irina Gudovich again and she gave me some historical background about the AWSE. Before AWSE itself was founded, there was an association of women mathematicians. Their first meeting was held in 1993, in Suzdal. Their leader at that time was Inna Emelianova from Nizhny Novgorod. In 1994, AWSE was founded by Galina Riznichenko, in Voronezh. They organised the 3rd international conference of women in mathematics, which was very successful. According to Prof Gudovich, there was a very romantic atmosphere in Russia at that time, everyone felt very free and felt a sense that everything is possible. For this third meeting, financial support was asked from 4 places, including a UNESCO grant, all of which were granted. Times have changed, though, and now it is very difficult to get support. Branches of the women in mathematics organisation and AWSE opened in many cities, but gradually the two organisations began to organise everything together and eventually (on no certain date) amalgamated. One of the main reasons for this amalgamation is that the AWSE was (and still is) run by Galina Riznichenko, who is a very talented organiser. They organise three international conferences every year, including the MCE where we are at the moment. This is the most influential and important one. It is held on alternating years in Pushchino and Dubna. There are a lot of male participants at events, but mainly women speakers and organisers. (We agreed that this was a good thing, as it shows that the conferences run by AWSE are good enough to encourage influential men to attend.)



From left :Nadezhda Gernet,Sara Munday,Natalia Vinokurova



With our diplomas!

The situation now for the AWSE is that more than 100 conference proceedings and abstracts have been published, there have been more than 8000 participants at all events, they have collected much statistical data on women in science. It is important to understand, though, that the main aim of the AWSE is to support science and education, not themselves. Women's problems relating to careers are also important, but they are not the main focus. Historically women in Russia had a similar problem to women in Europe, in that there was no place for them in mathematics or science. From the early 1990s though, this was no longer so much the case, as so many men left academia in Russia, either to work abroad or to work in industry. Only women were left, so it was up to women to save education and science, for their children and for the future. (As you will read in the interview with Prof Riznichenko, this point of view is not uncommon – in fact, everyone I spoke with shared it to a greater or lesser extent.)

On Thursday, I was interviewed by Professor Natalia Vinokurova (above right), from the Central Economics and Mathematics Institute at the Russian Academy of Sciences. She asked me first about what professional societies exist in the UK for mathematics and specifically for women. I told her about the London Mathematical Society (LMS) with its Women in Maths committee, the Edinburgh Mathematical Society, the Institute of Mathematics and its Applications (IMA) and the various Women in STEM initiatives that exist. She then asked me to talk about the EWM a little more, to describe our goals. She observed that it seems that our goals are more focused on career problems than on societal problems, I agreed that this was the case. I then explained to her about our membership fee system and what we use the money collected for (supporting meetings, summer schools and so on), and about our organisational structure (how often we have meetings, how we choose the committee, etc.). We agreed to write a joint article to highlight the similarities and differences between our organisations, which will be available in both Russian and English (this will be made available on the EWM website when it is finished).

On Thursday night, the conference banquet was held. It was so much fun! I really understood what Galina Riznichenko meant when she said (see the interview after this report) that people come to this conference because they feel amongst friends. There was good food, many toasts and speeches, dancing, music and even some poetry recited by the end of the night. It felt more like being at a big family gathering than a conference dinner.

Friday was the last day of the conference. In the morning, the first talk was by Prof Riznichenko, on the history and classification of Mathematical models in biology. The second talk was by Alexander Komarov and was about forests in Europe and global warming. Both of these topics would have fitted in very well to the Mathematics of Planet Earth theme of this year. After the lunch break, there was a report session, where someone from each of the different sections of AWSE gave an overview of what has been happening in their area since the last year. There was a short prize giving ceremony afterwards, where I was pleasantly surprised to be given a diploma for my talk in the education session. Altogether, it was a very satisfying, and, I hope, useful week.

Sara Munday, photos by Maria Teryokhina and Vladimir Fedorov

Women in Mathematics Day 2013 – Isaac Newton Institute

On the 18th and 19th of April 2013 a two day LMS Women in Mathematics conference was held at the Isaac Newton Institute in Cambridge. This proved to be a lovely venue for such an event and with excellent facilities. The very full programme comprised five talks by invited speakers, six contributed talks, a talk on Athena Swan and good practice, a presentation on funding, and discussion groups focusing on various issues that affect mathematicians in general and some that are more likely to affect female mathematicians. There were also posters on display for participants to peruse during the tea breaks and lunch, and of course a conference dinner.

The invited speakers spoke mainly on the topics of their mathematical research, and I felt that the standard was extremely high, the talks all being understandable and interesting, and with many beautiful graphics! In addition the invited speakers each included some narrative on her career progression; I found this an inspiring and useful detail allowing the more junior members of the audience to learn how these mathematicians had managed to have successful academic careers despite having to deal with concerns such as working overseas, having children, not always being able to find full-time or permanent positions and “the two body problem” (finding a job in the same location as a spouse or partner).

The contributed talks and the posters provided some insight into the current research of other young mathematicians, and provided a spring-board for many conversations during the tea and lunch breaks. All the participants were asked to vote for a

poster to win the poster competition and the winner was Tahl Ronel from the University of Manchester with her poster 'Inductive Logic and Rationality based on Symmetry'.

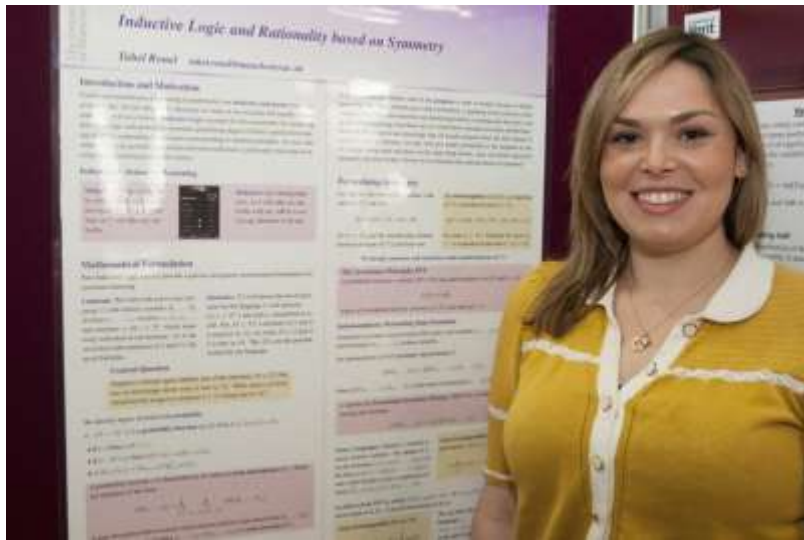


Participants

There was time set aside on both of the days for discussion groups, the focus which ranged from finding funding and taking the next step in your careers to good practice in university department and balancing work and family. These provided a forum for people to share their questions, concerns and experiences, and also added to the sociable atmosphere of the conference. Some of these topics were also presented in more detail during the funding talk and the Athena Swan talk, the latter of which outlined in particular that, in university departments, good practice benefits everyone whereas bad practice tends to have a disproportionately negative effect upon female staff.



Discussion group



Tahel Ronel, the poster competition winner

On the Thursday evening there was a delicious dinner hosted at Murray Edwards College, providing more opportunity to socialise with the other attendees. In all, the Women in Mathematics meeting was an enjoyable and enriching experience, and one I would enthusiastically recommend.

Jenny Cooley

University of Warwick, UK

Photos by Jonathan Tickner Photography

(This report was also published in the LMS newsletter)

Launch of the London Mathematical Society “Advancing Women in Mathematics”

The background to this report is the International Review of Mathematical Sciences, commissioned by the Engineering and Physical Sciences Research Council (EPSRC), which was conducted between the 5th and 10th of December, 2010. The report given after this review was carried out is strongly critical of the UK as regards participation of women in the mathematical sciences. The only organisation singled out for praise is the LMS. It bears quoting their remarks in full:

“The Panel can state that, compared to other countries, the proportion of women is strikingly small. The gender data presented by EPSRC ... indicate that the proportion of women principal and co-principal investigators is improving slightly (in younger researchers) but the overall numbers are not encouraging.

One-fourth of the present panel members are women, but during our site visits, no more than 10% (sometimes much less than 10%) of those present were women and very few women made presentations to the Panel. The only contexts in which there were more women were the lunch meetings with early career researchers; this is consistent with the trends in the data provided by EPSRC.

Possibly more worrying than the numbers was that, with a few notable exceptions, the people with whom we spoke did not seem to be particularly concerned about this issue. A typical attitude appeared to be, approximately, ‘it’s unfortunate, but there simply are very few women in the mathematical sciences’.

The Panel was informed at some site visits about positive steps involving the London Mathematical Society – in particular, its Women in Mathematics Committee and a March 2008 statement by the LMS Council. In 2009, the LMS and the Committee of Heads of Departments on Mathematical Sciences established a Good Practice Award to help advance women’s careers in university mathematical sciences departments.

Nonetheless, the overall impression from data and the Panel's experiences during the review week is that action about gender diversity is not a sufficiently high priority in the UK. Panel members believe that this lack of attention will be damaging to the future research excellence of UK mathematical sciences research and our experience suggests that significant changes will happen only when the issue is taken seriously.

In the US, seven NSF-funded mathematical sciences institutes encourage outstanding women researchers (including early career women) in various ways. In the Panel's view, a similar strategy should be followed in the UK via activities of the institutes and learned societies, which could ensure that excellent quality women at all levels attend (and, if appropriate, speak) at programmes held at UK institutes or organised by learned societies (see Recommendation R-11, Section 2)."

Information on the Good Practice Award referred to in the report can be found on the web page <http://www.lms.ac.uk/women/good-practice-scheme>. This scheme is geared towards helping Mathematics departments achieve Athena SWAN Award status, again, more information can be found here: <http://www.athenaswan.org.uk/>.

Concerning the launch event itself, here are my impressions. The atmosphere was pleasant, it was a good chance to meet people and chat, but the audience was rather small. (This last point is hardly surprising, given that the meeting was held on a weekday night, from 7-9pm, in central London. Not exactly a family-friendly setting!)

There were four talks, two by MPs, one by the president of the LMS and one by Professor Margaret Wright, who was one of the panel members on the International Review of Mathematical Sciences referred to earlier (and also gave this year's Mary Cartwright Lecture).



From left to right: Dr Graeme Segal, Andrew Miller MP, Prof Margaret Wright, Shabana Mahmood MP, Stephen Metcalfe MP and Dr Stephen Benn (Society of Biology)

The first speaker, Andrew Miller, Labour MP and chair of the House of Commons Science and Technology Committee, started off somewhat bizarrely by reading out part of the abstract of a scientific paper from an Oceanography journal. It then transpired that the reason behind this was that the author was his daughter! I suppose he was trying to illustrate a personal reason for caring about women in science. The rest of his speech contained nice but predictable sentiments about why it's good that the LMS is trying to encourage women mathematicians and he said the Science and Technology committee was interested in this issue. Whether that translates to any actual political will for change remains to be seen.

Then Dr Graeme Segal, the president of the LMS talked. His speech was very heartening, he (along with the rest of the governing committee of the LMS) has obviously thought long and hard about the issues concerning increasing participation of women. He first told us about the LMS Women in Mathematics Committee, which was set up 14 years ago. He told us that there are three major areas to focus on when trying to improve the rates of participation of women in mathematics. The first area is undergraduate participation. In the UK, the proportion of women taking a first degree in mathematics is roughly 40%. So, at least in this area, we can afford to be a little complacent. The second area is translating participation at undergraduate level to participation in graduate degree programs. There is a sharp drop-off in the numbers of women doing PhDs in mathematics in the UK compared to the number achieving a first degree. This problem seems to be completely intractable, but the LMS is doing

what it can in the way of providing role models, having women speakers at conferences, hosting a yearly women in mathematics event and so on. The main focus of the Advancing Women in Mathematics report is the third problematic area: career advancement. Only 6% of professors of maths in the UK are women. Comparing this to the 40% undergraduate population makes this statistic seem pretty dismal. Dr Segal pointed out that in order to address any of these problems, good information is crucial. Thus, one of the sections of the report contains detailed gender statistics, from students up to professors. He finished his talk by telling us that he wanted more women to be fully participating in mathematics not for the good of the country or anything like that, but because being a mathematician is a personally very rewarding career and he would like to see more women able to enjoy doing mathematics.



Professor Margaret Wright addressing the launch meeting

Then it was the turn of the invited guest speaker, Professor Margaret Wright (Courant Institute, NYU). She began by telling us a few variants of the, "Yes, but..." anecdote. This is the one where on, say, a hiring committee or in a meeting to decide speakers to invite to a conference someone mentions a woman's name... Then the "Yes, but..." response comes, where all sorts of objections are raised along the lines of the woman in question not being quite good enough. It was Professor Wright's opinion that these sorts of anecdotes are becoming less frequent. Then she talked about her experience during the visits to UK departments in 2010 as a member of the panel conducting the review mentioned above. She says that the entire panel was astonished by the lack of women and even more surprised by the apparent lack of interest in the problem (see the remarks quoted above). She said that although case studies and anecdotes are no substitute for robust statistics, when they all have the same outcome, it should at least make one stop and think. Her conclusion was that nothing will improve in this country without top-down change. From experience in the United States, Prof Wright is sure that rewarding good behaviour (for instance, a University or funding council offering to fund an extra position in a department if a woman is hired), works much more effectively than attempting to punish bad behaviour.

Finally, Conservative MP and member of the Science and Technology Committee, Stephen Metcalfe took the stand. His performance was, to be completely frank, dreadful. He started off by saying that he wasn't a scientist. Then he claimed to have always been a "frustrated scientist". Those with an ear for the set-up of a bad joke might not be surprised at the next line: "I can't say that I've ever been a frustrated woman in mathematics..." Oh dear. He then went on to waffle about how women should be encouraged to do maths because, "you know, women are responsible for society... um..." It was, at least from my perspective, quite a painfully long five minutes.

After the talks, we all had about an hour to chat to the speakers and to each other. I was fortunate to meet Rosie Beales, from the UK Research Councils. She told me something about her role as a diversity officer and also about the statement from the research councils regarding expectations for equality and diversity (this statement can be found here: <http://www.rcuk.ac.uk/documents/researchcareers/EqualityStatement.pdf>) After reading the relevant pages on the RCUK website, I am impressed by the intent shown, but still not entirely clear that this will be backed up by any real pressure brought to bear on departments who don't show improvement in this area. I also had a very interesting talk with Professor David Riley, the head of the maths department at the University of Nottingham. He was extremely concerned to increase the number of women hired by his department, but couldn't think what to do to get more women to apply in the first place. I suggested he

actively head-hunt qualified women, by sending them personal invitations to apply for relevant jobs. Failing that, he could advertise through the EWM mailing list!



Members of the audience during the talks

Sara Munday, photographs by Jenna Davies from Jonathan Tickner Photography

The 12th Forum of Young Mathematicians, Paris in 2012

The 12th forum of young mathematicians took place in Paris with the themes of Algebra and Geometries.

The forum is organised every year by the French association femmes et mathématiques, in association with the CNRS (National Center of Scientific Research) and its "Mission pour la place des femmes" (Mission for women's integration), as well as both CNRS institutes INSMI (Mathematics) and INS2I (Computer science).

The organisation committee in 2012 was chaired by Valérie Berthé (University Paris Diderot) and the scientific one by Eva Bayer (École polytechnique de Lausanne) and Ariane Mézard (Université de Versailles-Saint-Quentin-en-Yvelines, France). Claire Voisin (École polytechnique) gave the inaugural conference. Senior women mathematicians invited to give talks included Anne Quéguiner-Mathieu (Université Paris XIII), Barbara Schapira (Université de Picardie Jules Verne), Marie-France Vigneras (Université Pierre et Marie Curie), Nathalie Wahl (Copenhagen) and Julia Wolf (Ecole polytechnique). There were 16 selected contributions from young researchers and 45 participants, coming from everywhere in France, and even in Europe, as one session was in English with participants from Poland, Belgium, and Great-Britain, in particular.

This 2012 forum was a success, it was conducted in a stimulating atmosphere, with a high quality of lectures given by confirmed researchers as well as young researchers.

Scientific presentations of the 2012 Forum as well as documents and pictures are available at the following web address http://www.femmes-et-maths.fr/?page_id=827

In 2012, the French association femmes et mathématiques celebrated its 25th birthday.

On November 13th, during the 2012 forum, the association organised a series of events on the occasion of its 25th birthday. A theater show "Dérivée" (Derivative) by the company LAPS/Equipe du matin, usually played for high school students during Mathematics Girls Days ("Les filles et les maths une équation lumineuse" - Women students and math: a bright equation) was shown to the participants of the forum: the actors of this show actually encourage people in the audience to replay part of the show in the way they think it should be done, and this is a very good way of working against stereotypes.

A round table, titled "which future for women in mathematics", was organised in two parts. In the first part, we had the honor to welcome Najat Vallaud Belkacem, ministry for women's rights, Guy Métivier, director of INSMI, Cédric Villani, director of Institut Henri Poincaré, and Christine D'Argouges, regional coordinator for CNRS in Paris. The video tape (in French) of the debate is on the web site

http://video.upmc.fr/differe.php?collec=S_forum_jeunes_math_12

The second part of the debate was introduced by Aline Bonami, president of the Société mathématique de France (French society for mathematics), Claudine Hermann, honor president of the association Femmes & Sciences (Women & Science) and Christian Kassel, president of the scientific council of INSMI. The debate was very vivid among the participants and the ministry for Women's rights very well knew the specific difficulties of women mathematicians in France.

A few days after the round table, Guy Métivier, director of the CNRS Institute for mathematics INSMI, sent a letter (by e-mail) to all the mathematics laboratories directors to ask them to integrate diverse measures for parity, such as for example, to encourage women mathematicians to apply for a research sabbatical after a maternity leave.

Colette Guillopé

Laboratoire d'Analyse et de Mathématiques Appliquées

Université Paris-Est

INTERVIEW: Christiane Rousseau, University of Montreal

Christiane Rousseau studied at University of Montreal where she got her PhD in 1977. After postdoctoral studies at McGill, she came back to University of Montreal where she became professor. During her whole career, she led in parallel research activities and outreach activities: lectures in the schools, organization of mathematical camps, and articles in mathematical magazines. She has

been President of the Canadian Mathematical Society from 2002 to 2004. Since 2011, she is Vice-president of the International Mathematical Union. When she was Director of Centre de Recherches Mathématiques in 2013, she started the initiative "Mathematics of Planet Earth 2013", which now has the breadth of an international year under the patronage of UNESCO.



EWM: How did you come to have an academic career in Math?

CR: It came quite naturally. I had always been interested in mathematics. When I finished my postdoc, it was a period with very few academic positions in mathematics. At that time in Canada the Natural Science and Engineering Research Council was concerned that universities could not plan for the future. It created a program of five year research positions in universities that could be renewed provided the universities committed to hire the candidates as professor at the end of the first five term

mandate. I was one of the first recipients of these awards.

EWM: Can you shortly describe your research field and your most important results in this respect?

CR: I work in dynamical systems, mainly in the analytic context, and I concentrate my work on dynamical systems depending on parameters. Local methods allow to study the neighborhood of singularities, and bifurcation methods allow to explore the behaviour near singular values of the parameters (bifurcations). There are very few global methods for analyzing dynamical systems, but fortunately, singularities and

bifurcations very often organize the global dynamics. To study singularities and unfolding of singularities, one uses normal forms. The normal forms are often simple but, most often the changes of coordinates to normal form diverge in the analytic context. My main results are in the direction of explaining why these normalizing transformations diverge, in terms of geometric obstructions to bring the system to the normal form. These obstructions are often only seen when one extends the variables to the complex domain and unfolds the system.

EWM: How has the MPE event evolved from the planning phase to date? How do you manage as an organizer of such a big event?

CR: Originally, MPE2013 was a North-American venture, mostly centered on scientific programs to be organized by the North-American institutes, even if I always had in mind to also include an outreach component. Indeed, I had the idea of MPE2013 in 2009 when I was Director of Centre de Recherches Mathématiques (CRM) in Montreal, and North-American institutes are naturally networking. But, MPE2013 spread by itself. When we learnt of the interest of Institute Henri Poincaré (IHP) and Isaac Newton Institute (INI), we decided to enlarge the initiative to the world. The initial two years were mainly focused on the planning of scientific events: long term programs and workshops. Now, MPE2013 has the breadth of an international year under the patronage of UNESCO. The outreach component has become very important with tenths of public lectures and activities for the schools in many countries. An international Open Source Exhibition was launched during the MPE Day at UNESCO on March 5 2013, and this exhibition will grow during the coming years.

While MPE2013 has a North-American Steering Committee, its structure is very flexible. MPE2013 has no budget as such: the MPE partners commit to organize MPE activities and bring the budget for them. MPE2013 provides the website for the initiative. The American Institute of Mathematics (AIM) has been very helpful in the organization of MPE2013 with hosting two planning workshops in 2010 and 2011, and now hosting the website. The Mathematisches Forschungsinstitut Oberwolfach is hosting the website of the MPE Exhibition.

EWM: MPE has had a huge impact in Mathematics not only on the research side, but also on the teaching one. Can you tell us more about the influence of MPE on Maths teaching?

CR: I would say that the influence of MPE2013 on the teaching side is still to come. The success of MPE2013 comes from the fact that it is so timely: it makes the link between the tools that mathematics can provide and the planetary and societal challenges. Some type of activities will only occur in 2013, but some aspects of MPE2013 will last. This includes the teaching. A lot of people are excited with MPE2013, but they miss resources to integrate MPE examples in their teaching. It takes time to develop new examples and exercises, from one hour capsules to chapters, or courses or even academic programs. But any material developed for this purpose will last for several years, and the website allows to share the material within the world mathematical and educational communities. We already see new academic programs around MPE matters in preparation around the world.

EWM: What can you say about the fundraising for MPE (notable successes, difficulties) in which you or colleagues from the organizing committee were involved?

CR: As I mentioned before, MPE2013 has no budget as such. So we did very little fund-raising ourselves. Of course, many of our partners made fundraising for their own activities. In the US, there were two major successful applications to the National Science Foundation (NSF), one for a series of MPE workshops in 2013, and one for what is now called MPE2013+, i.e. MPE activities past 2013. In particular, the second grant provides money for maintaining and expanding the website past 2013. A special budget was needed for the

organization of the MPE competition, and for the organization, jointly with the International Mathematical Union (IMU) and UNESCO, of the MPE Day at UNESCO and of the launch of the MPE Exhibition on March 5, 2013. North American partners provided the funds to support the competition, while IMU and European partners supported the MPE Day at UNESCO. Mathematisches Forschungsinstitut Oberwolfach has provided enormous in-kind support for installing the MPE Exhibition on the Imaginary Platform.

EWM: Applied Mathematics is clearly very well represented within MPE. What about Pure Mathematics? Does MPE have goals that emphasize the role of the very theoretical aspects in everyday life?

CR: It is clear that Pure Mathematics is less represented in MPE. But I consider that it is there. While a pure mathematician is not always interested in applied problems, most of us are concerned with planetary problems and, as scientists, we want to understand the underlying science. I am myself a pure mathematician, and I am fascinated by all the subjects that I learn when working for MPE2013: in fact, it is one of my rewards for all the work I put in the project. And, looking at it from outside helps me have a global view of all the different topics that fit under MPE instead of limiting myself to some special subjects. There are MPE plenary lectures at mathematical congresses and also MPE colloquium talks that are very interesting for pure mathematicians. The French and English daily blogs are also very nice. I like to see mathematics (and science in general) as a continuum with no rigid boundaries between pure and applied mathematics. And some MPE topics are really borderline between pure and applied

mathematicians. This is the case for instance when one applies the methods of the n-body problem and dynamical systems to the movements of the planets and artificial objects orbiting around our planet.

EWM: What is it that you like most about MPE? What are your hopes/expectations regarding the impact of MPE on society at large and on encouraging women to pursue mathematical studies?

CR: As I mentioned before, MPE2013 is spreading by itself. While I had the

initial idea, MPE now belongs to the community. And the spirit of MPE: collaboration around the world, networking with other disciplines, mathematical research on planetary challenges, enrichment of the curriculum, is there to stay. I am personally very committed to the training of future high school teachers and to popularization of mathematics, and it is very exciting to see the enthusiasm in the schools and among the public for the new image of mathematics that is brought by MPE.

Another important goal of MPE2013 is to attract a new generation of researchers to the planetary problems. For that purpose, it is important to highlight the mathematical questions or challenges hidden behind these problems. The theme is very creative: there are so many topics that can be related to the planet. Hence, I hope that this will be attracting to women who will follow my dream when I started MPE2013...

INTERVIEW: Galina Riznichenko, Moscow State University

Professor Riznichenko graduated from Moscow State Lomonosov University, Faculty of Physics, in 1972. She achieved the degrees of PhD in 1978 and Doctor of Science in 1990. From 1996 until present she has been Professor of the dept. of Biophysics, Biological Faculty, MSU.

Prof Riznichenko is chairwoman of the Russian Interregional Public

Organization "Women in Science and Education". (Their website can be found here: www.awse.ru.) She is also in charge of the Organizing Committee for the annual interdisciplinary conference 'Mathematics.Computing.Education' (MCE), which this year was held in Puschino, near Moscow.



EWM: Everyone I have spoken to at the conference MCE about the organisation AWSE has mentioned your name as an important organiser. What gives you the motivation and drive to be so actively involved?

GR: The motivation appeared about 20 years ago, during the period of transition in Russia from Soviet Russia to the market economy. This transformation was accompanied by a drop in the meaning of education and science in Russia. The people working in these fields felt really bad, not only from the very low salary, but also due to low opinion of young people. Example: in 1990, I defended my Doctor of Science degree, which is a very high position in our society. But my son, who was around 10, asked me, "Mother, why

don't you go to work somewhere selling things, since you can count?" So the position of a professor in Moscow State University was much lower than the position of a shop assistant in some small store! This was a widespread viewpoint. A lot of men left science and education. The women stayed, however.

Then the occasion occurred that one woman who was the wife of a famous mathematician went with him to a meeting of the European Mathematical Society. She was also trying to earn some money in Russia and decided to make a touristic film from this trip. Part of the idea of the film was to collect women from various maths departments and organise a society of women mathematicians. At this moment, there were possibilities to get some

funding support from different foundations to organise scientific meetings, so this was done and a meeting was organised. About 50 or 60 women came together in Suzdal from different cities. Some of these women are still in the organisation, others have emigrated or even become politicians. The women got together with the intent of discussing problems for women, I even had prepared a report on problems for women including childcare and that sort of thing, but when we started to discuss at the meeting, the pressing problems for science and education in our country seemed to us to be more important than the problems of women. That's why we tried to discuss what to do. Since some of us had experience in organising conferences, we decided

that the best thing to do would be to start organising scientific meetings, bringing people together from lots of different cities to discuss the problems and find solutions. I was a Doctor of Science, which is why I was put in charge of finding funding and organising the next meeting.

My motivation comes from the fact that I see that these conferences are important for people. Most of the organisers are volunteers at other places too, such as olympiads, childrens' camps and so on, some for over 40 years! People need more than just an individual professional career, they also need to do things for other people.

EWM: What do you find most satisfying about your role in AWSE?

GR: The most satisfying thing is that people really come here, not because they have some demands or some money for this, but they come from their own feeling. They feel here that it is important for them. Not only because of meeting colleagues and they can organise publishing papers or defending degrees or such like, but because of the atmosphere. They feel among friends. One new participant asked me why we organise such a conference, as it is not at such a high professional level, but I say there are a great number of very highly professional international conferences, here people meet others with common profession, but not only that, common values and morals. Our world is quite different, in our mass media they say, "do everything for you, you are an individual!", but many people in Russia, especially older people, they don't feel that getting the most money in the world is the first value in the world. They don't feel this, really! That's why when they come here and meet the people who think the same, it is very pleasant for them that they are not so strange.

EWM: What do you feel are the biggest challenges facing your organisation?

GR: Fundraising. But, you see, really from the beginning of organising these conferences we had some unofficial support from various institutes, but it depends on individual heads of organisations and laboratories. We have sometimes had events where we had absolutely no money. I remember in the 90s, there was a conference "Mathematics and Art". One person brought to me a big bag full of money that he had borrowed from a friend! It was funny, but we were younger then.

EWM: Have you always been interested in science from a young age?

GR: I grew up in a family of scientists. My mother and father were geophysicists. My father was a member of the Academy of Sciences, he was rather a famous scientist. They were both associated with many international scientists. Geophysics was connected with abroad much earlier than a lot of other disciplines in Russia. So it was normal for me and I completed the mathematical school and then entered the Physics faculty at Moscow State University. I was interested in the problems of Biophysics, and the Biological faculty invited some physicists to do some work there, so it occurred that I worked in this faculty for all my life.

EWM: Can you tell us a little about your scientific interests?

GR: My scientific interests are connected with mathematical modelling. Mostly what I am interested in is how physical laws and physical principles and physical processes are connected and how they occur in very complex organelles and biological organs and work in very sophisticated ways to

produce some biological processes. For instance, many of my works are devoted to photosynthesis, because this is a very important system and it has been very thoroughly investigated. In this system we can do mathematical models which have parameters whose values are registered in some experiments, which is why maybe our models are more closely related to the real systems than others in biological modelling. Now, for many years, we have written some differential equations and used qualitative analysis, parametric analysis and all these things, but now for the last few years we have used computer models. We put in the model only physical processes, so Brownian dynamics, electrostatics and others for each protein, they move in the reaction volume which we reproduce also from experimental data and we see in such multi-particle model these processes which we put in the model only for interactions between pairs of elements and we observe the behaviour of the whole system. We then compare this results with experimental results from ensembles of, for instance, algae cells. We reproduce the process how we imagine it, compare different levels of complexity, it is really very interesting.

EWM: Did you have any strong female role models in your life, scientific or otherwise?

GR: Yes, I had my teacher in the faculty of Physics, the supervisor of my final course work. We were friends after that in our lives. She was one of the founders of mathematical modelling for Biology in Russia and also the author of very famous text books and monographs in this field. There are many Russian women who are good scientists. I didn't work with all of them on some common problems, but I knew them and discussed sometimes with them.

I also discussed with and had a lot of respect for my mother and her colleagues in geophysics. They were three friends, three women of the same age. You know, in the second world war, many men were away at the war and it was a time when sometimes women could get high positions in science, (not only in science, also in other disciplines).

Geophysics was very important for Russia, since it is this huge territory only fully explored in the 20th century. All this oil was discovered in 50s, 60s. My mother worked in Sakhalin, then in Caspian Sea, she was also a member of the project Challenger in the 80s when they drilled very deep under the sea. So, I have a lot of good women scientist

role models. There was another woman, a head of a magnetics laboratory in my childhood. She was a very beautiful hausfrau! She cooked, she sewed, not only dresses but even coats... So I never separated science from the home.

INTERVIEW: Gert-Martin Greuel, University of Kaiserslautern

Gert-Martin Greuel studied mathematics and physics at the Universities of Göttingen and Zürich (ETH). He obtained his PhD in mathematics in 1973 in Göttingen under the direction of Egbert Brieskorn. From 1973 to 1981, he held a position at the University of Bonn. He has spent several research stays abroad, including at the IHES and at the Universities of Nice, Chapel Hill, Paris VII, UNAM Mexico and Valladolid. From 1981 he has held a full professorship position at the University of Kaiserslautern.

From 2002 till March 2013 he was the Director of the Mathematisches Forschungsinstitut Oberwolfach and from 2010 till March 2013 Chair of European Research Centres of Mathematics (ERCOM). Since 1993 he has been the Director of the

Centre for Computer Algebra at the University of Kaiserslautern. He is Editor-in-Chief of "Zentralblatt MATH" and Editor of "Ergebnisse der Mathematik und ihrer Grenzgebiete" and Associate Editor of "Revista Matematica Complutense".

His research fields are singularity theory, algebraic geometry and computer algebra. Together with engineers he applies computer algebra to micro electronics. He is one of the authors of the computer algebra system Singular. Recently he became active in raising public awareness of mathematics, in particular by directing the exhibition IMAGINARY and by developing it into an interactive open source platform.



In 2009 he received an Honorary Doctorate from Leibniz Universität Hannover and in 2011 he became Honorary Member of the Real Sociedad Matemática Española (RSME). He is married and has five children and 14 grandchildren.

EWM: You were director of MFO for about 13 years. Can you describe the most important achievements of the institute during this period?

GMG: I was director for 11 years and 2 months. Although the basic mission of the Institute has not changed, there were a number of significant improvements. These can be classified into structural, financial and scientific changes. In addition, the MFO launched important outreach activities for the general public.

The most important structural change was that in 2005, the MFO became a member of the Leibniz Association. That meant the foundation of a non-profit organization which is responsible for the scientific operation and that was separated from the Society for Mathematical Research, which owns the land, the building and the library. The negotiations were difficult because we insisted that the scientific commission, which decides on applications for workshops, etc., should remain independent from any non-scientific influences from policy or group interests, because

this principle had been one of the main reasons for the success of Oberwolfach in the past. This was achieved and was probably the most important success of the restructuring of the MFO.

By entering the Leibniz Association, the urgent need to increase the budget could be achieved. Although the conversion of the structure represented a considerable extra cost of red tape, but as a member of the Leibniz Association, the MFO has a solid long-term legal and financial basis.

The core of the academic program is the weekly workshops and mini-workshops. In the longer-term stays, we have additionally introduced to the already established Research in Pairs program, the Oberwolfach-Leibniz postdoctoral program. One of the main focus of my work in the scientific field was the increased support of young scientists. Right now, in principle, can all young scientists of the various programs in Oberwolfach have their travel costs reimbursed.

As part of the Year of Mathematics in Germany in 2008, the MFO has created the travelling exhibition IMAGINARY to life. Meanwhile, IMAGINARY spread over three continents and with about 800,000 visitors worldwide it is extraordinarily successful. IMAGINARY was also used for the competition of MPE2013. At the inauguration in Paris in March this year it was released as an open source project (www.imaginary.org). In addition, the MFO has founded together with the community Oberwolfach the Museum of Minerals and mathematics MiMa.

EWM: Is there anything that you would have liked to change or improve in MFO activities, had the possibility arisen?

GMG: There are always things you would have done differently in retrospect. But I can think of no essential things.

EWM: MFO has recently started to fund short-term postdoc positions. Has this proven to be a successful strategy so far? Are there plans for long-term postdoc or visiting positions for more senior mathematicians? What about special semesters on dedicated topics?

GMG: I think you can say that the post-doctoral program OWLF is already a success. It does not replace

a full research position but supplements this by several month stays in Oberwolfach, with the possibility to invite coworkers. The participants of the OWLF-program repeatedly report that their stay in Oberwolfach was the most intense research in their academic career so far. Some of them already have an academic position. The program was also evaluated by the Scientific Advisory Board of the MFO as successful. It certainly requires some time before it is known even further and it is better utilized.

So far there are neither plans for long-term positions for postdocs or senior mathematicians, nor for special semesters on dedicated topics. Because of the remoteness of the site, this does not seem to make sense.

EWM: Numerous mathematicians have participated at MFO workshops and benefited from the MFO resources. Can you shortly describe the way the Institute is funded? Regarding private funding, if relevant for MFO, how does the institute succeed in attracting funds?

GMG: Core funding will be covered by public funds. Of these, 50% by the Federal Ministry of Education and Research (BMBF) and 50% by the provinces.

The MFO receives additional funds from the NSF and the JAMS for young scientists from the U.S. and Japan. The DFG supports special projects to improve the library. Support from the Oberwolfach Foundation and the Friends of Oberwolfach concerns includes the library, special construction measures and travel expenses in certain cases. The VolkswagenStiftung and the Klaus Tschira Foundation have funded the library extension, the Oberwolfach Seminars for graduate students and postdocs are partially funded by the

Carl Friedrich von Siemens Foundation. IMAGINARY was partially funded by the BMBF and the Klaus Tschira Stiftung. Earlier, the EU had supported several workshops in Oberwolfach, but that option has disappeared a few years ago.

All this support was based on applications to specially selected funding bodies, with the aim to improve the service of Oberwolfach for the mathematical community.

There have been very few direct funds from industry. But there is indirect support from senior members of the industry in the Oberwolfach Foundation.

EWM: In what way will the institute be supporting MPE activities?

GMG: The main support is provided through IMAGINARY as the platform for the MPE competition and as a portal for interesting contributions (movies, simulations, galleries) on the issue of MPE. There are also several workshops in Oberwolfach, dealing with mathematical problems of the earth.

EWM: Several outstanding mathematical institutions, for instance MSRI (Berkeley), Isaac Newton Institute in Cambridge, Mittag-Leffler Institute (Sweden), and the Institute for Advanced Studies (Princeton), annually support programs for women in mathematics. Does MFO have such a program, or plans for such a program in the future?

GMG: The MFO attempts to increase the number of female mathematicians in its programs, this has been particular successful in the new OWLF program. Because Oberwolfach, unlike the above-mentioned institutions, does not perform thematic priority programs, there are no special programs for women in mathematics. However, Oberwolfach already hosted a mini

workshop which was exclusively performed by women for women. For such activities, the MFO is open.

EWM: What did you enjoy most about your activity as an MFO director?

GMG: Scientifically very rewarding were the weekly discussions with the organizers and participants of the workshops, which gave an insight into new developments across the whole spectrum of mathematics.

Personally, the cooperation with the friendly, competent and highly

motivated staff of the Institute has given me great pleasure.

I would also not deny that the praise of the guests on the MFO has made me quite happy.

EWM: Can you tell us an interesting story from MFO during your term as a director?

GMG: Legendary is the story with the umbrella in connection with the library extension, for which the MFO urgently needed money and where our efforts had been unsuccessful so far. During a break in the 60-year celebration of the MFO, the Secretary General of Volkswagen

Foundation, Wilhelm Krull, and the Managing Director of the Klaus Tschira Foundation, Klaus Tschira, stood in the rain for a little chat. I got an umbrella, stood between the two, and thus occupied a strategically favorable position to formulate our request for an extension of the library. After less than five minutes, the two sponsors agreed: "Together we tackle that." And so it happened, of course, after a proper request to the Volkswagen Foundation and the Klaus Tschira Foundation.

Statistics on Women in Mathematics in the UK

As mentioned in the article above on the launch of the LMS's report, *Advancing Women in Mathematics: Good Practice in UK University Departments*, there are detailed statistics on the status of women in mathematics in the UK available in Section 3 of that document. There are sections on mathematics students, staff and also a section with details of the status of women staff according to their age. The report is clearly presented and is definitely worth a look. The conclusions are as follows:

" Across all subjects the proportion of women graduating and in staff positions continues to increase steadily. There has been an increase in the percentage of women in academic grades each year from 2001/02 to 2010/11. The increase is about 0.9% a year. In mathematics, the proportion of first degree and masters graduates who are female is increasing gradually, but the proportion of doctoral graduates who are female has essentially been steady at around 25% for the past seven years. Similarly, the proportion of researchers who are female has remained steady at around 21%. The proportion of permanent academic staff who are female has been increasing: of senior lecturers/lecturers around 21% are female, and of professors 6.5%.

The data suggest that there are two key transition points in the mathematics academic pipeline where the proportion of women drops: the transition from first degree to doctorate, and the transition from senior lecturer/lecturer to professor. This suggests that work is needed to persuade more women studying for first degrees to undertake doctoral research, and that work is also needed to improve the progression of women in academia."

The full report can be accessed here: <http://www.blitzadv.co.uk/LMS-BTL-17Report.pdf>

UPCOMING EVENT: The 16th General Meeting of EWM

[Registration is now open!](#)

Dates: September 2 – 6, 2013

Place: Hausdorff Center, Bonn, Germany

EMS lecturer

[Tamar Ziegler](#) will give a mini-course with three lectures, as EMS lecturer 2013.

Invited lecturers

- [Karin Baur](#)
Cluster algebras and triangulations of surfaces. Abstract: Cluster algebras arise in many different algebraic and geometric contexts. In this talk, I will provide basic examples of cluster algebras and explain how they arise from triangulations of surfaces.
- [Tatjana Eisner](#)
Ergodic theorems Abstract : Originally motivated by physics, ergodic theorems have found applications in many areas of mathematics such as dynamical systems, stochastic, functional analysis, number theory etc. We present some generalisations of the classical ergodic theorems and discuss recent developments in this area.
- [Michela Procesi](#)
KAM theory and quasi-periodic solutions for the reversible derivative wave equation. Abstract: I will present some recent results with L. Biasco and M. Berti on semi- linear non-linear wave equation with derivatives in the non-linearity. For such equations we prove the existence of Cantor families of small amplitude, analytic, quasi-periodic solutions, with zero Lyapunov exponents and whose linearized equation is reducible to constant coefficients.
- [Catharina Stroppel](#) TBA
- [Wei-Min Wang](#)
Nonlinear Fourier series and applications to PDE Abstract: We develop a new method to analyze space-time Fourier series. This method is motivated by solving nonlinear PDE's when conservation laws are not useful. We shall discuss its applications to the nonlinear Schroedinger equations and possibly also to some other equations.

Discussion

The program will include a discussion on the following topic:

In what way do women benefit from "excellence schemes" now widely spread in various European countries?

Call for contributed talks

The Organizing Committee for the 16th General Meeting of the European Women in Mathematics invites submissions for contributed talks.

A contributed talk will last 20-25 minutes and we anticipate two parallel sessions.

Please send us the title and a short abstract (up to two paragraphs) to [ewmwebmaster at gmail.com](mailto:ewmwebmaster@gmail.com), before May 1st, 2013, stating in the subject line 'Contributed talk for the 16 General Meeting'.

Call for posters

The Organizing Committee for the 16th General Meeting of the European Women in Mathematics also invites submissions for posters

The deadline of poster proposals is June 15, 2013.

The format of poster proposals.

1. The proposal should be restricted to a maximum of two pages.
2. The proposal should include a title, an abstract and up to three keywords.
3. The proposal should be written in clear way of English using Times New Roman 12-point font.
4. The title should be typed and centered (in 14 point bold capitals), author(s) name(s) (in 12 point bold), and affiliation(s) of author(s) (in 12 point italics) in this order; all in Times.

Please send us the poster to [ewmwebmaster at gmail.com](mailto:ewmwebmaster@gmail.com), before June 15, 2013, stating in the subject line 'Poster for the 16 General Meeting'.

Organizing Committee

- Christine Bessenrodt, Leibniz Universität Hannover, Germany.
- Lisbeth Fajstrup, Aalborg University. Denmark.
- Sylvie Paycha, University of Potsdam, Germany.
- Marie-Francoise Roy, Université de Rennes, France.
- Susanna Terracini, University of Milano Bicocca, Italy.

Scientific Committee: The EMS/EWM Scientific Committee:

- Viviane Baladi (University of Copenhagen, Denmark)
- Eva Bayer-Fluckiger (Lausanne, Switzerland)
- Christine Bessenrodt (Hannover, Germany)
- Alessandra Celletti (Rome, Italy)
- Cornelia Drutu (Oxford, UK)
- Isabelle Gallagher (Paris, France), chair
- Sara van de Geer (Zürich, Switzerland)
- Antonella Grassi (U Penn, USA)
- Ursula Hamenstaedt (Bonn, Germany)
- Dusa McDuff (Stony Brook, USA)
- Ragni Piene (Oslo, Norway)
- Ulrike Tillmann (Oxford, UK)

UPCOMING EVENT

Institut Mittag Leffler Summer School 2014

Dates: 23 – 27 June, 2014

Place: Institute Mittag Leffler, Stockholm, Sweden

Following a joint initiative by the Institut Mittag Leffler, EMS, and EWM, a small oversight committee set up by EWM and the EMS WiM committee issued a call in January for a majority female summer school to be held at IML in summer 2014. Nine proposals were received and the successful one has just been announced.

The summer school will be 23-27 June 2014 on the topic 'Apollonian Circle Packings', with main speakers Hee Oh (Brown) and Elena Fuchs (UC Berkeley). The proposers and organisers are Alina Bucur (UC San Diego), Pirita Paajanen (Helsinki) and Lillian Pierce (Oxford).

You can read about this exciting recent topic in two articles in the April 2013 Bulletin of the AMS. The school is mainly funded by IML and we are pleased to acknowledge additional support has been given by EMS. For further information see

<http://www.math.ucsd.edu/~alina/ewm/>

or contact Lillian Pierce lillian.pierce@maths.ox.ac.uk

Caroline Series

Chair, EMS WiM Committee

UPCOMING EVENT

The 13th Forum of Young Mathematicians

Dates: 13 – 15 November, 2013

Place: Ecole normale supérieure, Lyon

Themes: Mathematics, Computer science

The forum is organised by the association femmes et mathématiques, with grants from the Mission pour la Place des Femmes (CNRS), the INSMI, the INS2I, the MIPADI (Mission for parity and for fighting against discrimination of the Ministry for Higher Education and Research) and INRIA. It is sponsored by Société de Mathématiques Appliquées et Industrielles, by Société Mathématique de France, and by European Women in Mathematics.

Organising committee

- Anne Benoît, LIP-ENS Lyon
- Christine Charreton, Université Lyon 1
- Véronique Maume-Deschamps, ISFA, Université Lyon 1
- Natacha Portier, LIP-ENS Lyon
- Nathalie Revol, LIP-ENS Lyon
- Denis Serre, UMPA-ENS Lyon

Scientific Committee

President : Brigitte Vallée, GREYC, Université de Caen,

Programme committee

- Valérie Berthé, LIAFA, Université Paris Diderot,
- Aline Bonami, MAPMO, Université d'Orléans,
- Laurence Broze, EQUIPPE, Université Lille 3,
- Anne Pépin, CNRS,
- Céline Grandmont, INRIA Rocquencourt,
- Christian Kassel, IRMA, Strasbourg,
- Véronique Lizan, IMT, Université Toulouse 2,
- Marie-Françoise Roy, IRMAR, Université Rennes 1.

See, for more information, http://www.femmes-et-maths.fr/?page_id=1326

MISCELLANEOUS

An interesting article titled "Dust Off Your Math Skills: Actuary Is Best Job of 2013" can be found at <http://blogs.wsj.com/atwork/2013/04/22/dust-off-your-math-skills-actuary-is-best-job-of-2013/>

Some links to specialized meetings of women in mathematics:

<http://europeanwomeninmaths.org/resources/news/women-in-topology>

<http://europeanwomeninmaths.org/resources/news/wine-workshop-women-in-numbers-europe>

USEFUL LINKS AND CONTACTS

EWM website:	http://www.europeanwomeninmaths.org/	
EWM convenor:	Marie-Françoise Roy	marie-francoise.roy(at)univ-rennes1.fr
EWM deputy convenor:	Lisbeth Fajstrup	fajstrup(at)math.aau.dk
EWM email list:	Olga Lukina	ol16(at)le.ac.uk

Other organisations with similar aims to the EWM:

The European Mathematical Society (EMS): <http://www.euro-math-soc.eu/>

EMS Women in Mathematics Committee: <http://www.euro-math-soc.eu/comm-women.html>

France: Femmes et mathématiques: <http://www.femmes-et-maths.fr/>

UK: LMS Women in Mathematics Committee: http://www.lms.ac.uk/activities/women_maths_com/

Job announcements:

<http://www.math-jobs.com>

<http://www.jobs.ac.uk/>

<http://www.euro-math-soc.eu/jobs.html>

Membership: The membership fee can be paid by credit card or Paypal via the EWM website, or by direct transfer to the EWM bank account. For more details, see

<http://europeanwomeninmaths.org/about-us/membership>