# Reports of national EWM coordinators for Bonn General meeting (2013)

## From Bosnia and Herzegovina by Mirjana Vuković

Unfortunately in Bosnia and Herzegovina (BH) there is no association that puts a spotlight on woman in mathematics. There is not even one unique Bosnian Mathematical Society, but rather we have two societies: one in Federation BH (FBH), and one in Republic of Srpska (RS), whose work is mainly based in the preparation and organisation of student competitions in mathematics.

In the whole country, women mathematicians working at universities are a minority. There are only 18 women who hold a PhD in mathematics (two will retire this year, one aged 70 and the other with 65 years).

Otherwise, in the whole population (about 4. 000 000 residents), at eight state and a few private universities we have only 56 mathematicians with PhD.

Despite such a small number of mathematicians qualified to work at the universities, mathematicians are currently forced to retire at 65 years of life (usually better ones), although the law will soon change to say that retirement will be at aged 70 for all workers.

As a coordinator for BH I informed and invited women mathematicians to participate in the General EWM meetings (held in Hyderabad, Krakow, Bonn,...), mainly by printed posters and copies of the writen informations received from EWM.

#### Women in mathematics in Bosnia and Herzegovina

The latest data on total staff and women in mathematics only at the universities of Bosnia and Herzegovina can be found in the table below.

State universities in Bosnia and Herzegovina	Total Number of staff	Number of women
University of Sarajevo (FBH)	19 (-2)	10 (-2)
University of Banja Luka (RS)	12	1
University of Tuzla (FBH)	9	3
University East Sarajevo (RS)	9	2

State universities in Bosnia and Herzegovina	Total Number of staff	Number of women
Univ. "Džemal Bijedić" Mostar (FBH)	1	1
Univ. "Sveučilište Mostar" (FBH)	1	0
University of Zenica (FBH)	2	0
University of Bihać (FBH)	3	1
Total in BH	56 (-2)	18 (-2)

The latest data on total staff and women in mathematics only at the University of Sarajevo in the Bosnia and Herzegovina can be found in the table below.

University of Sarajevo	Total staff	Number of women
Professor	6 (–2)	4 (-2)
Associate professor	6	3
Assistant professor	7	3
Total with PhD	19	10
Assistant	9	2

## From Bulgaria by Elena Gavrilova

Unfortunately, the financial crisis in Bulgaria becomes deeper and this influences to a great extent the members of the Bulgarian section of EWM. Nearly every one of our members is working at a University or at a school and has very low income. At the beginning we had 35 members, now only a few women mathematicians are interested in membership. In 2013 only 2 members paid their membership fee (6 Euro per year) in comparison with 2007 when 20 paid their membership fee.

We continue to meet twice a year. Between our meetings we exchange via email information about international meetings, open positions, etc. with the members of the section but unfortunately, there are no funds for participation in conferences. We also have regular meetings with Bulgarian mathematicians who work and live permanently abroad.

## **From Denmark**

## by Tinne Hoff Kjeldsen

The Danish Mathematical Society has no women in mathematics committee, and no other women in mathematics activities.

There are no top-down initiatives in Denmark to encourage women to pursue a career in mathematics. Copenhagen University has the Freja-fellowships in science, which are 2-year, tenure track postdoctoral fellowships given to areas where the underrepresented sex represent less than 25% of the faculty. In all of science, the underrepresented sex is female. As far as I know, only one of them has been given to a mathematician, in the department of computer science.

The only bottom-up organisation or initiatives are the ones organised through EWM. The first Danish EWM meeting for women in mathematics was held on the 6<sup>th</sup> and 7<sup>th</sup> of October 2010. 22 master students, PhD students, postdocs and professors attended the meeting. The invitation was in Danish, but the meeting was held in English, since several of the postdocs and PhD students were non-Danish speakers. The meeting was financed by the Danish Mathematical Society. At the meeting it was decided to set up a website for women in mathematics in Denmark, and to have a second similar meeting in 2012. We have not managed to set up a website, but we did manage to organise the second Danish EWM meeting for women in mathematics. It took place at the 4<sup>th</sup> and 5<sup>th</sup> of October, 2012. Fifteen PhD students, postdocs and professors attended the meeting. To ensure the continuation of these meetings, a coordinating group of three tenured female mathematicians from three different universities in Denmark (Lisbeth Fajstrup, Ålborg University; Viviane Baladi, Copenhagen University; Tinne Hoff Kjeldsen, Roskilde University) was formed.

There are still only a very few women mathematicians in Denmark. Membership fees are no longer collected. It has been decided that Danish members of EWM pay directly to EWM.

The number of active members of EWM in Denmark is below 20, maybe even below 10.

## **From France**

## by Colette Guillopé

#### EWM members and activities

The situation in France is special because there exists a French association *femmes et mathématiques* (Women and Mathematics), founded in 1987. This association has about 150 members, most of them women, they are mathematicians or scientists or teachers in mathematics in high schools or in higher education institutions.

There are 7 members of EWM, who have paid the membership fee, and 5 other women mathematicians are or have been associated to EWM activities in 2011-2013. One of the French members, Marie-Françoise Roy, is the present convenor of EWM.

All the activities concerning women in mathematics in France are organized either by or under the auspices of the association *femmes et mathématiques* (see below for some details about the activities). Information about the situation in France has been made known to EWM members through the EWM Newsletter. Issues 19 (2011/2), 21 (2012/2) and 22 (2013/1) contain reports about the yearly forum which is organised in France for young women mathematicians. Issue 21 (2012/2) has published an article describing the situation of women mathematicians in France and the activities of the French association *femmes et mathématiques*.

The association *femmes et mathématiques* is also financially contributing to the next EWM general meeting in Bonn, by paying for the stay of the French coordinator.

Information about the activities of EWM are spread on the electronic list of members and friends of *femmes et mathématiques*. The e-letter of EWM is sent on this list, as well as news about EWM local or international meetings.

#### The situation of women mathematicians in France

Although girls in France have a slightly higher success rate than boys in high school for over 47% of students in the standard scientific track, attrition becomes significant in higher education. Throughout undergraduate and graduate university studies, the proportion of female students in fundamental sciences is constant, around 28%. In the selective parallel track for entering Engineering Schools (a French peculiarity), women account for 30% of the students, but 18% in mathematics - and physics - oriented disciplines.

Other French distinctive features include a favorable - although not perfect - social situation (low-cost public daycares, school all day long for young children, paid maternity leave), and the fact that a large portion of women mathematicians are civil servants, hired for a permanent position in the public research system in their late twenties or early thirties, after a short postdoctoral period.

Women account for 21% of mathematics faculty at French universities and 15% of mathematics researchers at the French National Center for Scientific Research (CNRS, the major public research institution in France, and the largest in Europe). Although these numbers might seem high compared to other countries such as USA, Canada or mostly everywhere in Europe, they remain unsatisfying and there is no progression, actually a noticeable decrease (20% women in mathematics at CNRS in 1989, the percentage being about constant since 1992, 16 to 17%, now 16%). The number of mathematicians employed by CNRS has increased from 250 to 375 in the past 20 years, though the number of women mathematicians has stayed constant, about 50 or 60. Women Phd's account for about 27% of all Phd's in mathematics, which is comparable to the number of associate professors at universities: there is no male advantage at this entry level. Note that there are very few women entering the most prestigious institution CNRS (zero to two a year, which amounts to about 0 to 10%).

However, the so-called glass ceiling remains very real. In mathematics, at universities, 27% of associate professors, but only 11% of full professors are women (respectively 30% and 10% in 1996) and the male advantage (ratio of the proportion of senior researchers --or full professors-- among men over the proportion of senior researchers --or full professors-- among women) is as high as 2.2. At CNRS, the situation is more favorable, with the same ratio of women among junior and senior researchers, say 15.5%, and without a male advantage (which means that the ratio is 1). The male advantage for mathematics is much lower than the overall male advantage at CNRS including all disciplines, which is 1.4. These figures give an idea of the thickness of the glass ceiling women find when they look for a promotion: in mathematics, men have 2.2 more chances to be promoted than women at the university. Note that the number of women at CNRS (60 in 2012) is much lower than the number of women at universities (669 in 2013), where the male advantage is huge; moreover, male mathematicians very often prefer to become full professors at university rather than continue their career at CNRS. A finer study of the population of mathematicians shows that it is in the 30-40 age category that the thickness of glass ceiling is the largest: in other words, men mathematicians tend to get promoted between 30 and 40, whereas women tend to stay blocked in their career at that age. Moreover, women mathematicians in the so-called fields of « pure » mathematics, such as algebra, geometry or theoretical analysis, are becoming rarer every year as older ones retire (this part is extracted from EWM Newsletter 21, 2012).

#### Activities of the French association femmes et mathématiques in 2012 and 2013

*Celebration of its 25th birthday in Novembre 2012.* This one-day meeting took place during the 12th forum for young mathematicians. A round table was organised with the topic « Which future for women mathematicians ? », in the presence of the minister for Women's Rights. The video can be seen at the address <u>http://video.upmc.fr/differe.php?</u> collc:S\_forum\_jeunes\_math\_12.

After the meeting, a number of propositions have been made by the person in charge of mathematics at CNRS, setting attention to non-balanced recruitement committes, and

encouraging in particular directors of laboratories to help promoting the career of women mathematicians.

Forum for young mathematicians. The forum consists of a series of lectures by senior women mathematicians, talks by doctoral students and young mathematicians, and mentoring activities for young mathematicians. The 12th Forum was held in November 2012 in Paris, with the theme of Algebra and Geometries. A few European mathematicians also participated. The 13th forum will take place in November 2013 in Lyon and will concentrate on Mathematics and Computer Science in Interaction. The four-year agreement, signed in 2010 with the CNRS to organise a forum every year, will probably be renewed this year. The CNRS in particular subsidises the mentoring activities.

*Math days for high school girls.* These aim to attract high school aged girls towards the pleasure of mathematics and show them the stereotypes in the field of women in mathematics. This activity is being amplified and is now organized in different cities in France, since it is part a huge contract with the French State called Cap'Math.

Presentation of statistics on the presence of women mathematicians in France. This presentation was given at a conference in June 2013 about parity in mathematics in France, subsidised by the CNRS and some mathematical institutes, as well as professional associations in mathematics.

*Other activities.* In collaboration with other associations such as Femmes & Sciences (Women & Science) and Femmes ingénieurs (Women Engineers), we organised:

- Visits in high school classes to give information about careers in STEM, in particular the action "1000 women ambassadors for science" in high schools of the South-East suburbs of Paris in 2013.
- Publication of a booklet about stereotypes; organisation of colloquia about the place of women in science and in the society.
- Actions towards the State which nominated jurys or committees with too few women.
- Actions towards the State about the recent catastrophic reform of the training of teachers and actions for years to implement gender training for teachers.
- Lobbying actions for promoting women in STEM in the public universities.

After the vote of a law for parity in politics in 2000, the situation in France in 2011 seems to be a little more favorable to parity in universities in general and in mathematics in particular.

After publicizing the statistics showing that there are too few women in the higher positions in enterprises (a law was voted in January 2011 to require 40% of each sex in boards of directors in 2017) and in public enterprises such as universities (a law was voted in March 2012 to require 40% of each sex in all non-elected committees in public institutions by January 2015), some universities are taking decisions to improve the place of women at the highest decision level.

After the change of president of France in May 2012, a ministry for Women's Rights was created, and the culture of equality between women and men is being implemented in every aspect of life in France through new laws. For example, a new law for elementary and high school education was voted in June 2013, with articles about the education of all children on the rôle of strereotypes. A new law for higher education and research was voted in July 2013 with measures for more equality in central committees of universities, as well as parity in State committees for Research or for Research Evaluation. A new law for equality between men and women is under discussion and should be voted on before the end of 2013, with articles about equality between women and men in their personal as well as professional life.

In mathematics, the associations tend to have a lesser role because younger professionals do not take over and do not recognise themselves in these structures; mathematicians, both women and men, are organising conferences on a much more individual basis.

## **From Germany**

### by Andrea Blunk

On the German list of EWM members, there are 46 persons.

We are trying to (re-)establish regular German EWM meetings. After the meeting in Aachen (April 2011), in November 2012 a two-day meeting took place in Bielefeld with about 40 participants. The meeting was organized mainly by Barbara Gentz (Bielefeld). In addition, the organizing committee consisted of Barbara Baumeister (Bielefeld), Christine Bessenrodt (Hannover), Andrea Blunck (Hamburg) and Evelyn Buckwar (Linz). The main speakers were Nina Gantert (München), Caroline Lasser (München), Sarah Rees (Newcastle) and Katrin Tent (Münster). Moreover, there were shorter presentations by female PhD students and postdocs, a poster session, a round table discussion, and, last but not least, social events like a joint dinner. More information and some photos can be found here:

http://www.math.uni-bielefeld.de/~gentz/pages/WS12/EWM12.html

The meeting was part of the conference program of the DFG-funded CRC 701 "Spectral Structures and Topological Methods in Mathematics" at the University of Bielefeld.

For the next meeting, an organizer and a place have already been found, however, the date has not yet been fixed.

In 2011, about 13% of the professors of mathematics at German universities were female. This means that the number is (slowly) increasing. Among the non-professors (with mostly non-permanent jobs), the proportion is about 24%. Christine Bessenrodt maintains a website

(http://www.iazd.uni-hannover.de/~bessen/FiM/Deutschlandkarte.html)

with a map showing how many female professors there are at the math departments at German universities. One can see at a glance there are still many departments with no female professor at all (14 out of 69).

## From Georgia by Nino Rokva

At Georgian universities the number of women mathematicians has been growing since 1990, when more young women decided to study mathematics.

The Batumi University has now 4 female mathematicians, as compared to only one previously. Among us, 2 are associate professors and 2 are assistant professors. Two of the three doctoral students are women.

The situation has changed also in other universities in Georgia. At Tbilisi State University, the number of female mathematicians reached 15 out of 60 mathematicians. At Kutaisi State University, the number of women mathematicians is 2 out of 19. At Telavi State University the number of women mathematicians is 4 out of 8. At the State University of Sukhumi there are 13 women out of 27 mathematicians.

Dynamics has improved over the last few years, and I hope in the future will increase the number of members of the EWM. We have decided that Georgian members of EWM pay directly to EWM. I plan to join the EWM meeting in Bonn.

## From Macedonia

## by Katerina Hadzi-Velkova Saneva

I have been a local coordinator since August 2012. During this period I have tried to inform my women colleagues about all EWM events and activities. Unfortunately, the majority of my colleagues did not see any reason to become a member of EWM, as they could see no benefits from this membership.

There were no special EWM local activities after the meeting in Barcelona (september 2011) except several mathematical events organized by the very active group of women mathematicians from the technical faculties at the University SS Cyril and Methodius in Skopje:

• The workshop "Asymptotic and Time-Frequency Analysis with Symplectic Geometry" was organized in 2012 within the bilateral science project "Asymptotic analysis in co-orbit spaces" (Austria/Macedonia) at the Faculty of Electrical Engineering and Information Technology and the Faculty of Mechanical Engineering in Skopje.

- Several seminars on theory of distributions was organized in 2012 at the Faculty of Electrical Engineering and Information Technology in Skopje. The lectures were mostly given by the women post graduate MSc and PhD students.
- Seminars on fractal functions and wavelet theory were organized in the period between November 2012 and March 2013. We had 4 women speakers in the different areas of mathematics.

### **From Moldova**

#### by Alexandra Tkacenko

Moldova is a small country, with population around 3.5 million inhabitants, where women make up about 51%. Unfortunately, in the areas of leadership that percentage is not maintained. The research we have is contained in the following statistics: only 67 of 403 doctors habilitate are women; 654 women and 707 men hold a Ph.D. in science. Women represent about 80% in the field of Education in Moldova. Unfortunately there is an increased index of population migration in recent years in Moldova, especially among youth. This is due to the political situation and especially the country's economic situation: low wages, low employment opportunities. Of course, interest in research and education, where the wages are the lowest, is declining, particularly in the areas of real profile. For example, the available places for Mathematical studies at the State University of Moldova (the largest institution of higher education in Moldova) financed from the state budget have not been filled yet after the first stage of enrollment in 2013. Under these circumstances it is quite difficult to promote science and research in this field.

I have been a member of EWM since 2006, when I accepted the proposal to act as regional coordinator of women mathematicians in Moldova in EWM. Since then I have attended all EWM meetings: Cambridge, 2007; Novi Sad, 2009; meeting with women mathematicians integrated into the World Congress of Mathematicians in Hyderabad, Hyderabad India, 2010; Barcelona, 2011. The Moldovian women mathematicians interested in the work of EWM have been regularly informed about the activities during such meetings. In general, my EWM related work focused on informing women mathematicians from Moldova about EWM, main events, summer school opportunities, scientific meetings, research work of women in other countries, etc.

Currently, EWM records eight members from Moldova. At least once a month we meet at the State University of Moldova on scientific seminars to discuss various scientific, research issues, and opportunities to participate in various international meetings. In 2012, Mrs. Galina Rusu, member of EWM, participated at the joint events on the occasion of the 6<sup>th</sup> European Congress of Mathematics in Krakow, Poland, on July 2-7, 2012. I can not insist on the payment of contributions by members of EWM because of both low wage level and the lack of real international opportunities in support of research in the Republic of Moldova. In this respect, I propose to initiate joint research projects within EWM,

financed by European funds, which would make it possible to attract and harness the intellectual potential of several women mathematicians from different countries. I believe that this would only enhance the good reputation of EWM. The interest in EWM would increase considerably, to a large extent become a lifesaver for many young women who are put in dilemma to choose research or family. Being the mother of four children, I know these problems well.

## From Montenegro by Biljana Stamatovic

In Montenegro there isn't an association or any activity that puts a spotlight on women in mathematics. In the whole country, there are just seven women who hold a PhD in mathematics. Also, in the whole population (about 650000 residents) we have just 20-25 mathematicians.

Last year, about 50 students enrolled in mathematics (in Department of Mathematics and Department of Mathematics and Computer Science).  $50\pm5\%$  of them are women. Annualy, about 10 women students graduate with a BSc., 4-5 of them continue to postgraduate studies. Currently 2 women students (out of 3 students in total) are engaged in doctoral studies.

## From Netherlands

## by KaYin Leung and Valentijn Karemaker

#### EWM in the Netherlands (september 2011 - september 2013)

The Dutch branch of the EWM has only recently established itself as a separate platform for female mathematicians in the Netherlands. EWM-NL now has a mailing list as well as a webpage (www.uu.nl/ewmnetherlands). We hosted our first event on April 26th, consisting of a talk and an extensive discussion session. Currently the local coordinators are considering setting up more local meetings and a mentoring scheme and are working on promoting EWM-NL throughout the Dutch academic community.

#### Women in mathematics in the Netherlands

The latest data on women in mathematics in the Netherlands were collected and published in 2008 by NWO (the Netherlands Organisation for Scientific Research) and can be found in the table below.

	Total staff (fte)	Number of women (fte)	% female
Professor	78	3,5	4,4
Associate professor	89	5,4	6,1
Assistant professor	117	14	12
Postdoc	89	7,3	8,2
PhD student	279	45,2	16,2

Table 1: statistics for women in mathematics at universities in the Netherlands<sup>1</sup>

NWO is hoping to publish an updated report in the course of 2013. All other available statistics are much less recent, yet show the Netherlands was at the backend of Europe. Figures for only Utrecht University suggest that the situation has not changed much between 2010 and 2013. Finally, the female members of the EWM-NL mailinglist offer the following statistics:

	Number of women
Professor	7
Associate professor	6
Assistant professor	14
Postdoc	4
PhD student	40

Table 2: women on the EVMI-NL mailinglist

The data show that even though emancipation of women in science in general, and in mathematics in particular, has been given priority on the political agenda for a number of years, not much measurable progress has been made in the number of women in post-doctoral academic positions.

A few tenure track positions have been set up, such as the Rosalind Franklin Tenure-Track Fellowship in Groningen. NWO has several grant programs to encourage women, such as

Aspasia<sup>2</sup> and MEERVOUD<sup>3</sup>: Aspasia (new style) is a scheme to increase the number of women associate professors<sup>4</sup> by awarding grants to women who have already secured another NWO grant (Vidi or Vici). MEERVOUD aims to ease the step from postdoc to assistant professor, but seems to have stopped running. NWO is currently looking into further ways of expanding its grant programmes aimed at women in science.

Interestingly, EWM has only five registered members in the Netherlands. Apart from EWM and EWM-NL there are several other organisations for women in science, such as NIMF (<u>http://www.stichtingnimf.nl/</u>), and university specific organisations such as the "women network" (Utrecht University, <u>http://www.fss.uu.nl/vn/</u>).

## Poland

A report on the situation of women in mathematics in Poland can be found in the EWM newsletter 20 : http://europeanwomeninmaths.org/resources/newsletters/66/newsletter-no-20-20121

## **From Romania**

## by Ioana Dragomirescu

Although we have promoted the European Women in Mathematics Society and the European Women in Mathematics Meeting this year in Bonn through the Departments of Mathematics from different University in Romania, the number of active members of the European Women in Mathematics Society (EWM) in Romania is still not very high (less than 10). Also, most of the announcements on other conferences or scientific activities are disseminated through emails with the active members of EWM in the country. This year an important mathematical meeting took place in Romania. A Joint International Meeting of the American Mathematical Society and the Romanian Mathematical Society took place in Romania, at "1 Decembrie 1918" University of Alba Iulia, between the 27<sup>th</sup> and the 30<sup>th</sup> of June 2013. There was a large spectrum of mathematical topics addressed at the meeting: Algebraic Geometry, Calculus of Variations and Partial Differential Equations, Discrete Mathematics and Theoretical Computer Science, Domain Decomposition Methods and their Applications in Mechanics and Engineering, Harmonic Analysis and Applications, Geometry and Topology of Arrangements of Hypersurfaces, Local and Nonlocal Models in Wave Propagation and Diffusion, Mathematical Finance, Stochastic Analysis, and Partial Differential Equations, Mathematical Models in Life and Environment, Mathematical Mod-

<sup>2 &</sup>lt;u>http://www.nwo.nl/en/funding/our-funding-instruments/nwo/aspasia/aspasia.html</u>

<sup>3 &</sup>lt;u>http://www.nwo.nl/en/research-and-results/programmes/More+Women+Researchers+as+University+Lecturers+</u> %28/IEER/OUD%29

<sup>4</sup> http://ec.europa.eu/research/science-society/document\_library/pdf\_06/gender-challenge-in-research-funding\_en.pdf

els in Materials Science and Engineering, Noncommutative Ring Theory and Applications, Nonlinear Evolution Equations, Operator Algebra and Noncommutative Geometry, Operator Theory and Function Spaces, Probability and its Relation to Other Fields of Mathematics, Random Matrices and Free Probability, Several Complex Variables, Complex Geometry and Dynamics, Topics in Geometric and Algebraic Topology. Unfortunately, no women was considered for a plenary speaker position; however, a large number of women attended the meeting.

For a more detailed report on the situation of women in mathematics in Romania, including some collected statistics, please refer to newsletter 21 : http://europeanwomeninmaths.org/resources/newsletters/192/newsletter-no-21-20122

#### Russia

For a report on the situation in Russia, please see newsletter 22 : http://europeanwomeninmaths.org/resources/newsletters/221/newsletter-no-22-20131

## From Serbia

## by Jelena Aleksic

Unfortunately I can't come to the general meeting in Bonn, but Sanja Rapajic is going for sure. Also another Sanja, Konjik Sanja from Novi Sad applied for General meeting. She is not a member yet, but I will ask her to become one.

To the best of my knowledge, there are 9 EWM members from Serbia.

The Serbian Mathematical Society has no women in mathematics committee, and no other women in mathematics activities. The only competition open only to women is the Loreal-unesco award for women in science.

Some members from Serbia participated in Young Women in PDEs, Bonn 2012 and also applied for the 5th Women in Mathematics summer school in Trieste, ICTP 2013. Also, some of us took part in organizing a few conferences here in Novi Sad, but these were not strictly connected to EWM.

Fortunately, as some of you saw during the 14th general meeting, women are not a minority in mathematical academic life in Novi Sad. The statistics about number of male and female mathematicians at Department of Mathematics and Informatics in Novi Sad are as follows:

<u>Full professors</u>: 14 female and 18 male (the number that will retire in less then 5 years: 3 female and 9 male)

Associate professors: 4 female and 3 male

Assistant professors: 8 female and 10 male

At the moment it is too difficult to pay/collect membership fees. We recommend to all members to pay directly to EWM.

## From Slovakia

## Daniela Velichová

Basic facts:

- about 25% of active mathematicians working at the Mathematical Institute of Slovak Academy of Sciences are female (10 women)
- about 40% of mathematicians working as university lecturers at 10 universities in Slovakia are female (about 200 women)
- about 40% of leading positions in the boards of 2 existing Slovak professional mathematical societies - Union of Slovak Mathematician and Physicists, and Slovak Mathematical Society - are female (9 women)
- 9 women mathematician are among 23 members of the steering committees of Slovak Mathematical Society (with 160 members)

Currently there are no special committees or members of steering committees within either of the above two professional organisations that are responsible for promoting women in mathematics or the agenda related to these issues.

The Slovak Society for Geometry and Graphics is a non-profit professional scientific organisation aimed to stimulate scientific development in the field of geometry and computer graphics, to support young scientists in these disciplines, and to enhance the quality of geometry and graphics education at all levels. It has about 40 members, and 30 of them are women. This society plans to organize, using its own funds, a special event for women in mathematics:

 Seminar Women in Geometry and Geometric Modelling, October 16-18, 2013, Kočovce, Educational Centre of Slovak University of Technology

Within the seminar, information about EWM organisation and its activities will be presented and possibility of individual membership will be promoted.

As a national coordinator for Slovakia I have addressed all women mathematicians who have an e-mail contact available on their web-pages and informed them about EWM and its activities, and invited them to participate at the initial meeting held at the Institute of Mathematics and Physics, Slovak University of Technology in Bratislava. About 15 of the contacted women showed interest and 9 participated at the organised meeting. We have

agreed on the date of the planned Seminar in October and in the meantime we will try to encourage more women mathematicians to come and attend this event. During the seminar we will discuss possibilities and ideas of how to continue in order to promote gender awareness among the Slovak mathematical community, as so far it remains neglectful towards gender problems.

In December 2013, during the annual meeting of Slovak mathematicians that is regularly organised by the Union of Slovak Mathematicians and Physicists we will bring to discussion the topic of the possible establishment of a special board within this professional society that could focus on encouraging more women into mathematics and the special needs of women mathematicians and their promotion. Information about EWM will be also provided here for all participants in order to foster interest of women to participate in EWM and benefit from its activities.

So far, there are no other activities related to EWM in Slovakia, and we can count no members. We are hopeful that some might appear during the seminar in October 2013.

## From Ukraine

## by Yuliya Namlyeyeva

No EWM activities have taken place in Ukraine. I resend the relevant information from the EWM to the members and interested scientists. Thanks to the support of EWM, a young PhD student from Ukraine took part in the recent EWM meeting in Krakow and will also be in Bonn.

I have not collected statistics about female mathematicians in Ukraine, but it's visible that in the last several decades the number of female students of math faculties and PhD students in mathematics has being growing constantly. The reasons for this tendency are the low incomes in education system and hazy prospects for the future scientific career in Ukraine, so men look for more promising activity.

Despite the high number of women working at universities and scientific institution of Ukraine, there is some kind of "glass ceiling" for careers for women. Many women complain about it privately but don't say it in public, possibly avoiding some ironic or aggressive reaction from male colleagues. Young women are more active than the older generation but often prefer not to join any female unions, for the same reasons. This is why the number of members of EWM in Ukraine grows so slowly (there are only 8 members of EWM in Ukraine at the moment).

On the other hand, there are some very positive movements, for example several very interesting international projects are running where the heads from the Ukrainian side are women; one member of EWM, Dr. Alexandra Antoniouk became the President of the Humboldt Club Ukraine just recently. The next regular conference organized by the Humboldt Club Ukraine will be held this September <u>http://eumls2013.logo-st.com/</u>; most members of the local organizing committee are women. We are going to discuss some future activity with the active female mathematicians in Kiev this autumn.

## United Kingdom

For a report on the situation in the United Kingdom, please see newsletter 22, which can be found here: http://europeanwomeninmaths.org/resources/newsletters/221/newsletter-no-22-20131

## **GUEST REPORTS**

### **From Africa**

#### by Marie-Francoise Ouedraogo

## (chair of the commission on Women in Mathematics in Africa (AMUCWMA)

In Africa, one had to wait until 1971 to see the first doctorate in mathematics defended by a woman in an African university. Moreover, until 2006, there was only 11% of women among African mathematicians with a doctorate. These are the statistics established by the commission on the History of Mathematics in Africa of the African Mathematical Union (AMU).

AMU was created in 1976 at the first Pan-African Conference of Mathematicians in Morocco. AMU has five commissions, among them, the commission on the History of Mathematics in Africa (AMUCHMA) and the commission on Women in Mathematics in Africa (AMUCWMA).

Since 2009, AMUCWMA in collaboration with the International Centre for Pure and Applied Mathematics (CIMPA) has initiated some activities to promote Mathematics and African Women Mathematicians. First, a mailing-list containing more than 300 women mathematicians was set up. Also a series of five workshops on African Women mathematicians to be held in different regions of Africa was planed, following the one organized in Maputo (Mozambique) in 2008. The objective of these workshops is to bring together women from various regions of the continent to a Mathematics workshops where there will be platform for presenting their research, discussing the situation and status of women in Mathematics in Africa.

The first one took place at University of Ougadougou, Burkina Faso, 26<sup>th</sup> -27<sup>th</sup> October 2012. The activities of this workshop included mathematical lectures for a large public, talks of young participants on their research topic and a Round Table on the situation of African women mathematicians. At the Round Table it was suggested to organize women mathematicians in Africa by the creation of an association of women mathematicians in Africa.

This was the main objective of the second workshop, which was held at the African Institute for Mathematical Science (AIMS) in Cape Town, South Africa, 17<sup>th</sup> -19<sup>th</sup> July 2013. The workshop included lectures, network activities, talks by participants on their research topics, poster session by AIMS students and a Round Table. During the Round Table discussion, the African Women in Mathematics Association (AWMA) constitution was adopted. The aim of AWMA is to promote women in Mathematics in Africa and promote Mathematics among young girls and women in Africa.

Now AWMA needs to grow up and work with associations with similar goals like EWM.

## **From Pakistan**

### Rashida Adeeb Khanum

Pakistan practically has no groups of women in Mathematics. One can find many PhDs in Mathematics in Sind, Punjab and Islamabad (the capital). However, in the other three regions, Khyber-Pukhton-Khwa (KPK), Baltistan and Balochistan the women PhDs in mathematics are nominal. The women in mathematics from these areas need encouragement in making their career as mathematicians. Being a local coordinator of EWM, I indicated these differences in my presentation in the "v women in mathematics summer school" Mathematical theories towards environmental models at ICTP, Trieste, Italy, held from May 27 till June 1st, 2013.

There were not many activities in Pakistan during September 4, 2011 to September, 2013, regarding women mathematicians, except that "the summer school at ICTP" was formally advertised in Pakistan on behalf of EWM Committee. In response we received 14 applications of both genders from Pakistan. Among those, one candidate was fully funded by EWM for the summer school.

We are convinced that Pakistan should have its own association of women in mathematics under the name "Pakistani Women in Mathematics (PWM)" and have been encouraged in this direction by various discussions with EWM members during the ICTP summer school. The association should keep a website and online network. Furthermore, the membership fee from EWM members in Pakistan could be spent on different activities of PWM in Pakistan.

The leading objectives of PWM are as follows:

- 1. Bringing together women mathematicians from the whole country under one umbrella, where they can share their knowledge and experiences with the similar minded people.
- 2. To promote mathematics as a career in women and encourage them to become researchers in Mathematics.

#### Forthcoming activities of PWM:

The first formal meeting of PWM will be held this year, in which the PWM committee members will be selected. Women in their PhD studies or early career would be very welcome to join the PWM.