

Editorial To The Fourth Issue

Dear Reader,

It is our great pleasure to welcome you to the fourth issue of the CWM newsletter. Similar to the previous issues, we start the newsletter by an interview with a CWM member, Neela Nataraj. Neela has been the first woman head of the Department of Mathematics at IIT Bombay. She tells us about her successful career and personal life as well as her service to the mathematics community. We then continue with “News From CWM”. This includes the funding call for 2021 and agenda of the virtual CWM meeting. The external article of this issue is about the ‘Standing Committee for Gender Equality in Science(SCGES)’ and is written by the chair of the committee Catherine Jami. SCGES was formed as a result of Gender Gap in Science Project.

The Covid-19 pandemic continues to spread and affect the lives of everyone, and the negative impact of this crisis on women and junior mathematicians is hard to ignore. The European Women in Mathematics Open Letter on the COVID-19 pandemic addresses this issue. We give details of how to read, sign or disseminate this letter inside the newsletter under the ‘Other News’ title. Regarding this matter, CWM asks the ambassadors to help gathering data about the effects of the Covid crisis. Recently an email was sent to all the ambassadors asking about contributions to complete our CWM page [Women in math and the COVID-19 crisis](#). We would like to complete it in two different directions: by getting information and links to any initiatives and any data from individual countries regarding the impact on women in math or in science or other vulnerable groups in the scientific community to enrich the first part of the page and by getting more individual testimonies that we could include to enrich the second part of the page. So if you are an ambassador please make sure you got the email and help us to build this web page. If you are not an ambassador and have information to share please contact us directly at cwm.info@mathunion.org.

We invite your feedback and suggestions about the Newsletter. Hope you enjoy reading it! Please distribute it in your country and your scientific network.

Ekin Ozman

Interview with Neela Nataraj



We continue our interview series with Neela Nataraj, member of CWM, who manages the annual grants among other duties. Prof. Nataraj has been working at the Indian Institute of Technology Bombay (IIT Bombay) since 2003. She works in the broad area of Numerical Analysis, and has published more than fifty papers in international journals of high repute. She has so far supervised/co-supervised nine students for their Ph.Ds, and is guiding four students presently. She served as the first woman Head of the Department of Mathematics at IIT Bombay (2016-2018). Notably, this is one of the largest and the best Mathematics departments in India. Prof. Nataraj is currently the Professor-in-Charge of IIT Bombay–Monash Research Academy, one of the major collaborations engaged in research through joint Ph.D. programs between IIT Bombay and Monash University. She is presently the Chair of the Executive Committee of Indian Women and Mathematics (IWM). Prof. Nataraj is an elected Fellow of the National Academy of Sciences (FNASc) India. She is a recipient of Best Teacher award conferred by the Indian National Science Academy (INSA), New Delhi for the year 2019. During 2015-2017, she served as the Convener of Women’s cell of IIT Bombay, which deals with sexual harassment cases and gender sensitization programs of IIT Bombay.

Q: Could you tell us how you got into math? When did you decide to pursue mathematics?

N-N: I studied in several schools (1st to 10th grade) because my father had a transferable job. I started my schooling in Mumbai and later moved to Kerala, a Southern state of India and studied at different schools in Kerala. I changed schools five to six times in all. In the formative years of schooling, I had a fear of mathematics. At some stage, between the tenth and twelfth grades, a few excellent teachers made the difference in my gaining self-confidence which helped me in deciding mathematics as the subject of specialization in college. Although I was passionate about Mathematics during my undergraduate program, I had no plans to pursue Ph.D. Given the conservative family that I hail from, it was not easy to set long term career goals. The only thing that I had clarity since my childhood, was that I wanted to pursue teaching as my profession.

Q: Did you do stuff outside of school, or was it just in class? Were there any pivotal moments where you knew that you wanted to be a mathematician, beyond learning that math research exists?

N-N: Yes. I used to do a lot of problem-solving outside the class. I also loved

analysis, reasoning and logical thinking. Motivation to pursue Ph.D. first began during the summer of first year of my Masters program when I attended a three-week workshop in the Indian Institute of Science, Bangalore. I interacted with some exceptionally motivating peers from various parts of the country who were part of the program, and also attended lectures by some wonderful mathematicians. In particular, Professors S. Kesavan and M. Vanninathan inspired me a lot with their wonderful teaching skills, knowledge and energy levels. Needless to mention that some instructors of my Masters program in Kerala University were also a great motivation. Slowly, I started thinking about joining for a Ph.D. program. However, I never even dreamt about an academic cum research career. All I want to say is - my career path came as it came, and I just went with the flow.

Q: Did you have any role models? (male or female?)

N-N: My role model has been my mother. I come from a very traditional South Indian family where women were expected to settle down soon in life, which meant marriage and sometimes a stable job. My mother had a Ph.D. in Botany from Bombay



University but had quit her job as a Professor to take care of my younger sister and me. Child care support was not an option back those days and given the nature of my father's transferrable job, she had to give up her academic career. But I think that was also her choice as I don't recall any instance in which my mother even mentioned or regretted having given up her career to raise us. I believe she had clarity about priorities in her life, and this is one basic lesson that I learnt from her. Irrespective of the situation, she made the best of her life, was always

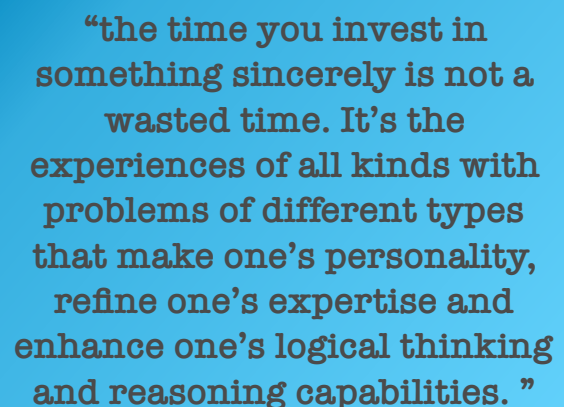
happy and had a positive attitude towards life. Her traits have influenced in shaping my personality. I never saw her idle. She invested her time doing something that benefitted people at large at the expense of any monetary benefit. I think I inherited my passion for teaching from her - when she could not continue with her teaching career, she taught students who needed help with their studies. When my younger sister (Prof. Deepa Venkitesh who considers me as her role-model) and I became less dependent on her, she started working as a principal in a school. In short, she has influenced me by her way of thinking, and has taught me really important life lessons.

Q: Can you tell us about your research? What attracted you to this area?

N-N: I work in the broad area of Numerical Analysis, more specifically in finite element methods. Many applications and problems in applied mathematics, engineering, economics/finance, biology, etc. lead to mathematical models that are best described by partial differential equations (PDEs). Solving them exactly is an impossible task in most of the practical situations, and one has to resort to efficient numerical techniques that work differently for different problems. My research interests are centered on numerical analysis of PDEs with emphasis on thin/very thin plate bending problems governed by fourth order linear/nonlinear elliptic systems. I am interested in the investigation of both fundamental and applied problems by theory and computations; a priori and a posteriori error analysis and optimal control problems governed by PDE constitute highlights. As far as application problems are concerned, I have been focusing on nonlinear systems of PDEs that occur in laser surface hardening of steel, Kelvin-Voigt fluids, von Kármán plates, nematic liquid crystals, tumor growth, and so on. I was initiated into the interesting area of finite element methods by my supervisor, Prof. P.K. Bhattacharyya who is a civil engineer-turned mathematician. Although I wanted to work on application-related problems, my training in Masters in this domain was not adequate. After I joined my Ph.D. program, my Professor, who was an excellent teacher, spent a lot of time by teaching several courses and conducting research seminars. I really appreciate the fact that he believed in me. Undoubtedly, his motivation played a role in broadening my horizons in teaching and research.

Q: You are an active researcher, you have many administrative duties and you are also an award-winning lecturer. How do you balance all these?

N-N: I consider myself fortunate to have been able to do whatever I enjoy – be it teaching, research, administrative duties or networking. Once we start enjoying the profession, efficiency improves. I work hard on minimizing distractions and try to perform to the best of my capabilities. Balancing becomes easier by planning in advance. Life always surprises and challenges, and there could be unexpected hurdles. Even setting a career goal was difficult for me and what I tried was to be sincere, hard-working and self-disciplined. There were interruptions and setbacks, but



“the time you invest in something sincerely is not a wasted time. It’s the experiences of all kinds with problems of different types that make one’s personality, refine one’s expertise and enhance one’s logical thinking and reasoning capabilities.”

I bounced back to do my best. I have been involved in administrative activities for the past twelve years or so, which take up a lot of my time. It is very hard for me to say 'no' to a task, especially when it is assigned by my very supportive institute. My supervisor used to say that the time you invest in something sincerely is not a wasted time. It's the experiences of all kinds with problems of different types that make one's personality, refine one's expertise and enhance one's logical thinking and reasoning capabilities. I think I know my strengths and my limitations very well. Yes, the multitude of works limit social interactions, but don't seem to miss them too much. At this stage of my life, I try to invest some time in activities around women and mathematics, as I consider it as one form of service to the society. I feel pleased if it helps a young woman consider mathematics as a career.

Q: How do you balance work and family life?

N-N: I have always enjoyed unconditional support from my husband Nataraj and my son Abhinav (who is grown-up now). For me, the fact that my family has been always supportive and values whatever I do is a very important boost. I consider myself fortunate to have had opportunities to interact with some very inspirational, scientifically sound and encouraging people from national and international communities, both mathematicians and non-mathematicians. Very important and essential sources of support are collaborators and mentors. Personally, work collaborations keep me going; the excitement of sharing ideas, working together and learning new things makes me happy. I started working with Professor Amiya K. Pani who warmly welcomed me to the Numerical Analysis group of IIT Bombay in 2003. We collaborated in supervising Ph.D. students and wrote joint projects and research papers. During that phase of life, research pace slowed down, as I was trying to balance teaching, research and family life; my son was growing up and I needed to spend more time with him. All my collaborators and Ph.D. students contribute in keeping me motivated, help me learn new things and introduce me to new research areas. IIT Bombay is one of the premier institutes in India with an excellent work culture, and it is really a pleasure to work in this institute. Let me mention two collaborators who have really made a difference in my research career and helped me learn a lot. Professor Carsten Carstensen at the Humboldt University in Berlin, is a brilliant mathematician and has

played an extremely important role of a research mentor. He is an excellent collaborator who has been always very encouraging about new ideas and research directions. The other person is Professor Jérôme Droniou (Monash University) who is a very enthusiastic and intelligent



mathematician. We supervise Ph.D. students jointly through the IITB-Monash Research Academy. The interactions with collaborators keeps the research aspect of my life very lively and I consider fortunate to have very knowledgeable and meticulous collaborators who impress me always with their hard work and swift thinking!

Q: Have you faced any challenges as a woman in mathematics? If yes, did you have other kinds of support through these challenges, if any?

N-N: I have definitely challenges in life but can't really blame being a woman in mathematics for the slow pace in my career due to personal reasons. After I received my Masters degree from Kerala University, I moved to IIT Delhi to pursue a Ph.D. degree, thanks to the efforts by my maternal aunt (Ms. Kala Ganesan) for getting me the application form, encouraging me to apply and try for an admission in IIT Delhi! My Ph.D. was funded by a grant from National Board for Higher Mathematics. After my marriage during the first year of my Ph.D., my parents- in-law and husband encouraged me very strongly to continue with the Ph.D. program. The support of a very affectionate extended family was very crucial, as I had to take several long breaks during the tenure of my Ph.D. program; the first one being that of having a child. The other set backs were demise of my father and diagnosis of mother's terminal illness. The regular breaks (sometimes for longer periods of time) delayed the Ph.D. and I took a long time to complete. Also, there were a few years of Ph.D. when I was without any financial support from any funding agency. Even in the tough phases of life, I got strong encouragement from my advisor, who is very good human being. Though he would not compromise scientifically, he was very patient with me. I think that many women in academics lose out in their prime time. Family priorities, many a times, lead to breaks in research career, and I consider myself very lucky that I was able to sustain this phase and continue to do Mathematics. At different stages in life, I did face obstacles, but remained positive and tried to figure out ways to overcome them. I think the passion towards work kept me going. Regarding other challenges, there are not too many mathematicians in India who work in evolving areas of Numerical analysis. Networking and collaborations has helped me a lot in keeping abreast of new developments in the area.



Q: Did you have any notions or worries in advance about how the growth of your family would intersect with the growth of your career?

N-N: I did not have any worries about the growth of my career. As the situations were so fluid, I hardly had any expectations. As a woman, I made a conscious choice of prioritizing family life at appropriate times. I think women enjoy an incredible privilege of motherhood. I wanted to enjoy this phase of life, that is, to invest time and best efforts to see my child grow and be there for him whenever he needed, as this phase does not come back in life. However, I tried my best not to take a break in career and be outdated in research. The Ph.D. and Master project students aided in this, as I felt a sense of responsibility towards building their careers. As we know, the biological cycle of motherhood of a woman interferes with many recognitions – women have to make a choice to continue with their careers or struggle sometimes to judiciously balance work and home responsibilities. I tried to do it to the best of my capabilities, simply because I wanted to continue doing things that I was passionate about and made me happy.

Q: You have also many duties as a CWM member including managing the annual grants. How much work is involved in this?

N-N: No position/responsibility comes with zero time commitment. With CWM grant related work, there is an increased responsibility during some months of the year. I should mention that chair of CWM Marie Francoise Roy has been always supportive and very helpful when it comes to CWM related work. It gives me great satisfaction to be a part of a committee that facilitates building networks of women at the regional and continental level.

Q: You are also very active in "Indian Women and Mathematics ". Can you tell us more about this organization? When was it established? How did the position of women mathematicians in India change over time?

N-N: The Indian Women and Mathematics (IWM) is a collective of Mathematicians that has been in existence formally since 2013. It runs on a project-mode supported by the National Board of Higher Mathematics (NBHM), Department of Atomic Energy, Government of India and is now in its third phase. I am currently the Chair of the Executive Committee of IWM. The main objectives of IWM has been to encourage more women to pursue higher education in mathematics. To this end, a lot of events and networking opportunities have been organized by CWM. These activities are organized at all levels - workshops for undergraduate and postgraduate students, conferences for researchers and faculty members, visitors program aimed at research dissemination and networking and so on. The broad idea is to motivate women to take up careers in mathematics, create networks and provide



opportunities for networking of women involved in teaching and research in mathematics. We try to ensure that local networks are created to cover all regions in India and also try to provide opportunities to connect with role models. CWM has been supporting some of the activities of IWM regularly. IWM events have also attracted mathematicians from neighbouring countries like Nepal and Bangladesh. Thanks to the support from CWM, we were able to attract physical participation by women

mathematicians from these countries for the events in 2019. Because of the pandemic, IWM activities were suspended for a few months. However, life has to move on and we decided to do the best in the current situation. Since the last two months, we are running a very successful series of monthly virtual seminars by excellent mathematicians- speakers in this series are Professors Cheryl Praeger, Neena Gupta, Susanna Terracini, Rekha Thomas, and so on to name a few. These seminars have attracted lot of participants, and involve interactive sessions with the mathematicians sharing their journeys and personal experiences. In India, a lot of

women pursue research leading to Ph.D degrees, and also choose a career in teaching. The main challenge according to me is to pursue active research post Ph.D. and postdoc. Moreover, I feel that that women are under-represented in decision making positions and in administrative positions of responsibility. I am aware that there are conscious efforts to improve this situation.

“Although it is an extremely difficult task, it is important for you to identify clearly your passion. If it is Mathematics that you really enjoy, make sure that nothing will stop you from pursuing it. There are options other than teaching and research in Mathematics, and you may explore them.”

Q: Do you have advice for young people who might be thinking about doing math?

N-N: Although it is an extremely difficult task, it is important for you to identify your passion. If it is Mathematics that you

really enjoy, make sure that nothing will stop you from pursuing it. There are options other than teaching and research in Mathematics, and you may explore them. If there are obstacles, find creative solutions to circumvent them. Finally, it is

important that you love your work, for it is the most important ingredient for happiness.

Q: What advice would you give to a beginning male or female graduate student/early career researchers in mathematics?

N-N: Work really very hard and be sincere! Do enough courses and explore different areas of Mathematics. There will be tough phases and periods of uncertainty in the academic life, but learn be patient. It's often said – this too shall pass! Do not compromise with work quality for the sake of quantity. Work on improving both oral and written communications skills, and utilize conference talks, poster presentations, and teaching opportunities to present complex ideas to an audience in a simple and uncomplicated way. Finally, networking and collaborations help to learn and stay motivated, but ultimately one has to spend a lot of quality time to make contributions to the area.

Q: You are one of the three main characters of the first part of Journeys of Women in Mathematics, the film created by CWM in 2018 thanks to the support of Simons Foundation. Was it difficult to accept to play this role and why did you say yes? Can you tell us how you experienced the projection of the film at (WM)², and the meeting with the two other main characters? Did you get many reactions after the film was disseminated? Can you mention a few that surprised you?

N-N: Initially, I was very hesitant to play a character in Journeys of Women in Mathematics. Frankly speaking, the film shoot was also not something that I enjoyed. It was roughly two days of shoot that was edited to a four-minute clip. There was a lot of time spent by many people on this effort. Professor Marie Françoise Roy convinced me to do the role and now I am happy about this decision. The screening that happened in ICM Rio was a very different experience, it was an emotional moment for me to watch the movie with a large math community and also to interact with the co-stars of the movie. The impact of the movie was much larger than what I imagined. Many young women back in India still tell me that they could connect with the challenges faced by women depicted in the movie and that they got inspired and motivated after watching the same. It also gives a great feeling of happiness when I receive emails of appreciation from women in the country with whom I have never interacted. I believe that the movie has made small positive differences in lives of many women. Recently, in one of the online webinars, the organizers surprised me by screening the movie when they introduced me to the participants!

NEWS FROM CWM

● CWM Funding Call for 2021

CWM invites proposals for funding of up to €3000 for activities or initiatives taking place in 2021, with deadline **15 December, 2020**. Because of the COVID crisis, (totally or partially) virtual on-line events are welcome and non -virtual projects should explain their plans in case they have to turn virtual.

Applications should be sent to applications-for-cwm@mathunion.org aimed at either:

- Establishing or supporting networks for women in mathematics preferably at the continental or regional level,
- Organizing research workshops geared towards establishing research networks for women by fostering research collaborations during the event,
- Other ideas for researching and/or addressing issues encountered by women in mathematics.

Note that:

- There will be only one call for applications regarding activities in 2020,
- Priority will be given to events taken place in developing or emerging countries,
- Funding for individual research projects is not available.

For further details please check the CWM [web page](#).

● Events Funded by CWM in 2020

In 2020 we received 34 applications, 8 were approved for a total funding of 20,600 Euros. Details of these activities are as below:

- [Website and Celebration of May 12 \(2020\)](#)

The May 12 initiative, celebrating women in mathematics worldwide on the birthdate of Maryam Mirzakhani took place for the second time in 2020. The May 12 website was made perennial and adapted to annual events, thanks to a funding coming from IMU CWM, EWM and AWM. It was ready at the beginning of 2020.

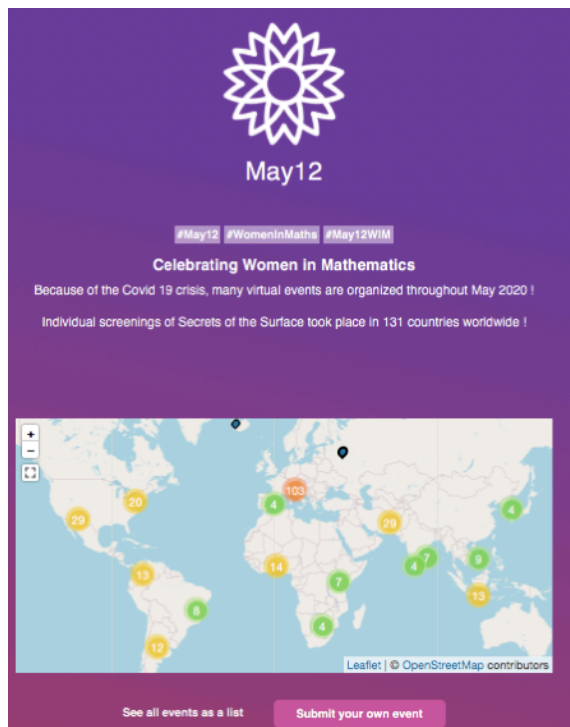
The 2020 edition was a huge success, with specific activities adapted to the Covid crisis and the impossibility to meet physically in most places of the world. The most prominent initiative was the campaign for the one hour documentary film "Secrets of the surface, the Mathematical Vision of Maryam Mirzakhani", produced by Zala Films with the Mathematical Sciences Research Institute, filmed in Canada, Iran and the United States and released in January 2020. Zala Films agreed to individual screening offered on the May 12 website, and subtitles were provided by May 12 network in English, Farsi, Italian, Portuguese, Spanish and Turkish.

Applicants received a link to screen the film, and they were asked not to disseminate it. There were more than 20000 requests for the link and people from 131 different countries

participated. After the free screening, 99% of the people reported that they found the life and mathematics of Maryam Mirzakhani as shown in the film interesting.

- **MATHEMATIKA: Through a land of mathematics, future project (2021-2022)** involving train journey across Russia, film and exhibition for (WM)2 and ICM 2022

This exhibition will be based on interviews with ten Russian women from nine different Russian cities who contribute, directly and indirectly, to research in mathematics. The exhibition project will consist of photographs and citations from the interviews with the heroines. The full transcripts of the interviews will be presented in the blog section to come. The materials of the final version of the site will be available in English and Russian. The exhibition will be premiered at the World Meeting for Women in Mathematics, (WM)2 in July 2022 in Saint Petersburg, Russia, preceding the the International Congress of Mathematicians, ICM 2022. The exhibition will be open



throughout all the Congress. This exhibition is an art and journalism project. It continues the tradition of telling stories of women in mathematics started at the previous Rio , where the film Journeys of women in mathematics was screened.

Due to the Covid-19 pandemic the rest of the funded events are postponed as listed below.

- **Chile/Santiago** : Workshop on Skills for Young Women Mathematicians (postponed to October 2021, however an on-line event was organized.)
- **Colombia/Bogota**: 3rd Meeting for Latin American Women in Mathematics (postponed to 29 Nov 2021 - 3 Dec 2021)
- **Vietnam/Halong**: Meeting/Conference for networking (postponed to 21 July 2021- 26 July 2021)
- **Asia/India**: IWM activities and follow-up mentoring programme (dates to be finalised)
- **Senegal: Women in SAGE** (taking place from 12 July 2021 to 16 July 2021 according to initial plans)
- **Turkey/Izmir** : Topics in Applied Mathematics, Nesin Village (postponed to 2021, dates to be finalized)

● **CWM Meeting**

The 2020 meeting of CWM was held virtually on Monday 5 and Tuesday 6 October CEST 14 H to 17 H. The ten members of CWM (M-F. Roy, C. Araujo, A. Adem, P. Bonfert-Taylor, T. Ezome, J. Kagunda, M. Kotani, N. Nataraj, E. Ozman and C. Praeger) along with IMU president Carlos Kenig attended the meeting (some of them partially). Member of the Local Organizer Committee of ICM 2022 Julia Pevtsova and International Day of Mathematics Governing Board member Betul Tanbay attended parts of the meeting. The agenda of the meeting featured a discussion on activities to be supported by CWM in 2021, the organization of the second World Meeting for Women in Mathematics taking place just before ICM Saint Petersburg in 2022 and a lively discussion on the COVID-crisis and its negative impact on women in mathematics worldwide. The launching of the Standing Committee for Gender Equality in Science, activities organized for International Day of Mathematics, CWM

funded activities in 2020, the results of the questionnaire sent to CWM ambassadors, the suggestions made by the ambassadors and the improvement of the tools of CWM were also part of the agenda.

Here are some of our decisions not already mentioned:

- the organization of virtual CWM ambassadors meetings by geographical zone followed by a global virtual gathering, with the aim of disseminating tools and good practices to reduce the gender gap
- the creation with a professional designer of slides presenting CWM that can be adapted and used by each CWM ambassador,
- the inclusion of the important topic of on-line teaching and research in the next CWM Newsletter, with contributions from a specialist as well as from CWM ambassadors.

● **Carolina Araujo Awarded Ramanujan Prize for Young Mathematicians from Developing Countries**

The International Centre for Theoretical Physics has awarded Carolina Araujo , a researcher at the Institute for Pure and Applied Mathematics (IMPA) in Rio de Janeiro, Brazil, the [2020 Ramanujan Prize for Young Mathematicians from Developing Countries](#).

The prize is in recognition of her outstanding work in algebraic geometry, in particular in birational geometry and the theory of extremal rays, of which she gave important applications, in particular obtaining a characterization of projective spaces and hyperquadrics; for her work in the study and classification of Fano varieties, and her study of algebraic foliations. Araujo has also played a key role in promoting women in mathematics and in the organization of important mathematical activities.

Carolina Araujo is vice-chair of CWM for the period 2019-2022.

OTHER NEWS AND ANNOUNCEMENTS

- **EWM Open Letter**

An [open letter](#) by EWM was posted on 22nd September 2020 concerning the unequal impact of COVID 19 on certain parts of the community; in particular untenured women academics and care-givers. The letter advocates for proactive support for such people. EWM invites individuals to sign the letter, forward it, post it to social media, and inform national and international organizations. Many individuals from Europe have signed supporting the letter; LMS supports the letter and asks universities to take into account the uneven impact of the pandemic while considering job applications and promotions. The letter is also endorsed by AWM.

CWM invites information about any initiatives and any data from individual countries regarding the impact on women or other vulnerable groups.

- **Rita Pardini awarded with the Tartufari Prize from Lincei Academy**

Rita Pardini, full professor of Geometry at the Department of Mathematics of the University of Pisa, won the international prize "Luigi Tartufari" for Mathematics 2020 edition of the National Academy of Lincei, ex-aequo with Valentino Tosatti of Northwestern University (USA). "The algebraic taste, rigor and elegance characterize her extremely valuable production" is the judgment that emerges from the jury's motivation that awarded the prize to the professor.

- **Theorems and initiatives inspired by Maryam Mirzakhani from the virtual Heidelberg Laureate Forum**

Panelists: Vincen Delecroix (France), Hélène Barcelo (USA), Andrea Vera Gajardo (Chile), Sorelle Toukam Tchoumegne (Cameroon) and Georges-Philippe Gadoury-Sansfacon (Canada), chair Marie-Françoise Roy
The video of the panel discussion is available on YouTube [here](#).

- **Maryna Viazovska receives the 2020 Latsis Prize**

Maryna Viazovska receives the 2020 Latsis Prize. The young Ukrainian-born mathematician, professor at EPFL, in 2016 made a breakthrough in solving

problems of compact stacking of spheres.

"I am happy to contribute thanks to the Latzis Prize to the excellent reputation of my institute (...), and I hope of course that this reward will incite girls to become passionate about mathematics", rejoices Maryna Viazovska.

- **Brazilian Group of Black Women Mathematicians anti-racism manifesto**

On June 14, 2020, the Brazilian Group of Black Women Mathematicians issued an anti-racism manifesto, available in English [here](#).

About the collective: The Group of Black Women Mathematicians is composed of self-identified Black women working (or interested) in different areas of mathematics. Created on July 31, 2018 via WhatsApp, the group is intended to provide support and space for

discussions as well as facilitate collective mobilization of Black women mathematicians from and/or in Brazil.

Contact information: e-mail: matematicasnegras@gmail.com
instagram: [@matematicasnegras](https://www.instagram.com/matematicasnegras) Youtube: [Matematicas Negras](https://www.youtube.com/channel/UCMmKqKqKqKqKqKqKqKqKqKq).



- **Dr. Malabika Pramanik appointed next director of the Banff International Research Station.**

The Banff International Research Station (BIRS) has announced that Professor Malabika Pramanik is the incoming Director of the Station commencing on July 1, 2020. Dr. Pramanik, who is Professor of Mathematics at the University of British Columbia, was confirmed unanimously and

enthusiastically by the BIRS Board of Directors for this position. ([Official announcement](#)) Congratulations to Dr. Pramanik.

• **EMS 2020 prize winners announced**

10 EMS Prizes, the Felix Klein Prize and the Otto Neugebauer Prize for 2020 announced.

We are particularly delighted to see that 4 prizes out of 12 are for women mathematicians and we send them our special wishes and thoughts.

- [Ana Caraiani](#) (Imperial College London)
- [Kaisa Matomäki](#) (Turku)
- [Maryna Viazovska](#) (EPFL, Lausanne)
- [Karine Chemla](#) (Université de Paris and CNRS)

The full list of prize winners is [here](#).

• **Luna Lomonaco's wins the UMALCA Recognition Prize**

The [UMALCA Recognition Prize](#) recognizes young mathematicians who have done work of exceptional quality and who are permanently working in a country in Latin America and the Caribbean. Since 2000, the prize has been awarded every 4 years, to 1 to 4 mathematicians. The 4 recipients of the UMALCA Prize 2020 were announced at a virtual ceremony on September 14, 2020. Luna Lomonaco (IMPA, Brazil) became the first woman to be awarded the prize.

CONFERENCE ANNOUNCEMENTS

- Because of Covid-19 precautions many events have been switched online. Here you can find a list of online mathematics seminars around the world: <https://mathseminars.org/>
- Specific webinars for women in mathematics are being organized. For example Indian Women in Mathematics is organizing virtual IWM Visitor Programme lectures visible on youtube. See [here](#). In Africa, AWMA is organizing a monthly [virtual seminar](#). In Poland, there is the [PolWoMaths Seminar](#). In Canada there is the [Women in Combinatorics Virtual Seminar](#). More seminar announcements can be found [here](#).

The Standing Committee for Gender Equality in Science

Article written by Catherine Jami

CNRS, Paris

IUHPST Secretary General

Chair, Standing Committee for Gender Equality in Science

Over the last decades, women scientists and some of their male colleagues have increasingly joined forces at various levels to promote gender equality in their profession. Equal access to the profession is indeed a major target to be attained. This being said, those of us who have succeeded in beginning careers in science know that gender equality throughout our careers has yet to be achieved, in science as in every other aspect of the societies in which we live.

The international “Gender Gap in Science Project” supported by the International Science Council from 2017 to 2019, and led jointly by IMU and IUPAC, is one of the initiatives that have emerged in recent years with the goal of promoting gender equality in science. Among the major results this project has produced, two focus in particular on the situation of women in scientific professions. On the one hand, a worldwide survey of scientists has provided quantitative evidence that women’s experience in science is less positive than that of men throughout their careers, irrespective of place and discipline. On the other hand, a data-backed study of publication patterns has measured the gap between the presence of men and the presence of women as authors in the most



renowned journals. The third major outcome of the project is the development of a database of good practices for which there is evidence of effectiveness; this bears more widely on all levels of the societies in which we live, from family education to higher education.

As project members gathered to share and publicize their results, they all agreed that the network set up to carry out this project should be made permanent. There remains much to discuss and to do, and contacts across scientific disciplines at an international level are an invaluable asset. These contacts help us to better understand disciplinary as well as geographical diversity, and bring out the ways in which various strategies can best be applied in different societies around the world. They also enable us to get information and inspiration from other disciplines.

In order to give this network a formal and permanent existence, representatives of six of the scientific unions involved in the Gender Gap in Science Project worked together during the spring of 2020 on drafting a memorandum of understanding, which nine partners have now signed. They are now the founding partners of the Standing Committee for Gender Equality in Science (SCGES). Each of the founding partners appointed a representative and a deputy representative. For IMU, these are respectively Marie-Françoise Roy and Carolina Araujo.

SCGES held its first meeting on 12 September 2020. Self-introduction from each partner representative gave us some insight into how our respective organizations promote gender equality, and also on what else they could and should do. While several international unions have commissions or committees



devoted to supporting women in their field at all levels, actions are also being taken at national and more local levels.

During this meeting, SGENS elected its first officers: Catherine Jami (myself, CNRS, Paris, IUHPST) as chair, Guy Smagghe (University of Ghent, IUBS) as Vice-Chair, and Marie-Françoise Roy (University of Rennes, IMU) as Communication Officer.

The main task that SGENS sets itself is to promote the circulation of information and to foster initiatives and projects in favor of gender equality among its members and beyond. It also intends to extend its membership to other scientific unions and associations, so as to include as many disciplines of STEM as possible, but also the social sciences. This will enable us to better understand the situation in disciplines other than those already represented in the SGENS, but also to fully benefit from the research and expertise in gender studies developed in some of these disciplines.

At the moment, we are working on developing our website so as to turn it into an effective tool for communication among those who are working to promote gender equality in science. Therefore, I would like to invite readers of this newsletter to share all relevant information with us, by contacting us via this [web page](#).



About the Author:

Catherine Jami is a Senior Researcher at the French National Centre for Scientific Research (CNRS).

After studying mathematics at the Ecole Normale Supérieure de Jeunes Filles, she did a Master in Chinese Studies (University Paris-Diderot) and a PhD in the history of mathematics (University Paris-Nord). Beside Paris, she has worked in Kyoto, Beijing and Cambridge (UK). Her research interest is in the history of science, with a focus on the circulation of knowledge between Europe and East Asia, and on the role of science in the construction of the state in 17th and 18th century China. As Secretary General of the International Union of History and Philosophy of Science and Technology, she has taken part in the Gender Gap in Science Project. She is the chair of the Standing Committee for Gender Equality in Science.