# STANDING COMMITTEE FOR GENDER EQUALITY IN SCIENCE



# FIRST ANNUAL REPORT

2020-2021

https://gender-equality-in-science.org/

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#### **SCGES PARTNERS**

International Astronomical Union\* (IAU) International Council for Industrial and Applied Mathematics\* (ICIAM) International Geographical Union (IGU) International Mathematical Union\* (IMU) International Union of Biochemistry and Molecular Biology (IUBMB) International Union of Biological Sciences\* (IUBS) International Union of Geological Sciences (IUGS) International Union of History and Philosophy of Science and Technology\* (IUHPST) International Union of Pure and Applied Chemistry\* (IUPAC) International Union of Pure and Applied Physics\* (IUPAP) International Union for Physical and Engineering Sciences in Medicine (IUPESM) International Union of Psychological Science (IUPsyS) International Union of Soil Sciences (IUSS) Association for Computing Machinery\* (ACM) GenderInSITE\* (GIS)

<sup>\*</sup> Founding partner

#### **EXECUTIVE SUMMARY**

The Standing Committee for Gender Equality in Science (SCGES) is an independent committee formed in 2020 by nine international scientific organizations, most of which are full members of the <u>International Science Council</u> (ISC). These founding partners had worked together on the ISC supported project <u>A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences: How to Measure It, How to Reduce It?</u>, which became known as the "Gender Gap in Science Project". At the time of this report, SCGES has 15 partners, 13 of which are ISC International Union Members. They represent scientists around the world, brought together across disciplines to promote gender equality in science.

The aim of SCGES is to ensure liaison amongst international scientific unions to foster gender equality and the implementation of <u>recommendations</u> of the "Gender Gap in Science Project", especially in the scientific communities that the scientific unions represent. SCGES has also issued <u>recommendations to safeguard gender equality in science in the context of the Covid-19 pandemic</u>. SCGES intends to actively cooperate with policy makers and international organizations, first and foremost ISC, for the promotion of gender equality in science.

SCGES works to encourage and systematize the exchange of information on gender equality and women in science amongst scientific unions. The present report, compiled after the Committee's first year of existence, is evidence of its current and future work on this endeavor. It contains brief reports from the 15 partners of SCGES, all of which have a stated commitment to gender equality. Exchanging information on all related issues and making them visible is a major motivation for the partners who work together in SCGES.

SCGES membership among international scientific unions has almost doubled in one year. One of our priorities is to further increase the number of partner unions.

- <a href="https://gender-equality-in-science.org/">https://gender-equality-in-science.org/</a>
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#### INTRODUCTION

#### What is SCGES?

From 2017 to 2019, a number of international organizations, most of them scientific unions that are members of the International Science Council (ISC), took part in the project A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences: How to Measure It, How to Reduce It? (hereafter "Gender Gap in Science Project"), supported by ICSU and then ISC. After this project was successfully completed, there was a shared wish among these organizations to continue to act together to further promote gender equality in science by continuing and enlarging the work accomplished by this project, and in particular by supporting women and girls' equal access to science education and fostering equal opportunity and treatment for females in their careers. For this purpose, in September 2020, nine of these organizations set up the Standing Committee for Gender Equality in Science (SCGES).

#### The Partners

The nine founding partners of SCGES were IAU, ICIAM, IMU, IUBS, IUHPST, IUPAC, IUPAP, ACM, and GenderInSITE. Over the year that followed the first meeting of SCGES in September 2020, these partners have been joined by six other scientific unions that are also members of ISC: IGU, IUBMB, IUGS, IUPESM, IUPSyS and IUSS.

As the attached reports compiled by the 15 partners of SCGES show, their situation regarding the promotion of gender equality varies greatly. Some, like IAU and IUPAP, have long had working groups for women in their discipline. Others, like IGU and IUHPST, have encouraged the development of research on women and gender in their respective disciplines. Others yet, like IMU and ACM, have dedicated budgets to support women scientists worldwide. In some others, the recent accession of women to the post of President represents an opportunity to institute lasting policies in favor of gender equality. Several of them have issued anti-harassment codes of conduct. Exchanging information on such matters and making them visible is a major motivation for partners to work together in SCGES.

The contributions by the representatives of SCGES partners that have been compiled in the present report provide detail information on their situation and on the actions they have each undertaken as regards gender equality in the scientific discipline they represent.

#### Aims

One of the main aims of SCGES is to ensure liaison among international scientific unions so as to foster the implementation in each of them of best practices that foster gender equality. In particular, SCGES's task is to encourage each of its partner to implement the <u>recommendations</u> of the Gender Gap in Science Project report, and in turn to encourage the implementation of best practices for gender equality in the scientific communities they bring together and represent.

While SCGES intends to actively cooperate with policy makers and international organizations, first and foremost ISC, for the promotion of gender equality in science, its specificity is that it brings together scientists across disciplines as main actors of this promotion.

#### How We Work

Each partner of SCGES appoints a representative and a deputy representative. All of us get together in a plenary meeting twice a year. During these meetings we exchange information on the actions taken by each partner, and discuss the activity of SCGES.

Between these plenary meetings, officers of SCGES meet at least every other month to monitor the progress of current affairs, and to work on proposals for further actions to be taken by SCGES.

Each partner makes a yearly contribution of 250 to 300 euros to fund the running of SCGES's website and its presence in the media.

#### **Accomplishments and Priorities**

SCGES works to encourage and systematize the exchange of information concerning actions in favor of gender equality in scientific unions. The present report, compiled after one year of its existence, is both the first result of this work and a means to pursue it further.

Another major goal successfully pursued by SCGES during this year has been to extend the partnership to other ISC member unions. Thus, after one year, the number of SCGES partners that are ISC member unions has almost doubled, from 7 to 13. One of the purposes of the present report is to make SCGES and its work visible to a greater number of international scientific unions, with the view of inviting them to join in and become partners.

In order to increase visibility of gender equality in science issues and of the actions undertaken to foster it, all SCGES partners have each undertaken to have a webpage of their own devoted to the issue, with a link to the SCGES website.

Last but not least, on 10 December 2020, on the occasion of the Human Rights Day, SCGES has issued a statement on the impact of the Covid-10 crisis on the career of women scientists.

#### **Standing for Gender Equality in Times of Covid-19**

Starting from the observation that, whereas all scientists are affected in their careers by the Covid-19 crisis, women are hit particularly hard, SCGES has issued some recommendations to limit the negative effect of caregivers' burden on their scientific careers. These recommendations are addressed to various institutions, including academic institutions, funding agencies, and scientific journals, and suggest ways in which they can take caregivers' burdens into account in assessing job and tenure applications, grant applications, and the evaluation of articles submitted for publication.

#### **Looking Ahead**

The Members' Forum of the ISC General Assembly that will convene in October will provide a valuable opportunity for SCGES to make its existence and work known broadly to all members of ISC, with a session entitled 'Gender Equality in Science: from a project to a permanent network of scientific unions' to be held on Monday 11 October 15:00 to 16:00 CEST as part or the ISC Members' Forum.

In 2022, SCGES will start a series of webinars on the situation of women in various scientific disciplines around the world, the work towards gender equality, and the results of research on women and gender, and more broadly on intersectionality in disciplines where such research is carried out.

Further, SCGES looks forward to bringing together scientists from all disciplines to cooperate on fostering gender equality in their community at the local, national, regional and international levels.

Catherine Jami Chair, Standing Committee for Gender Equality in Science

September 2021

#### **International Astronomical Union (IAU)**

https://www.iau.org

#### Representative and deputy representative

Currently, the Chair and Co-chair of the IAU Women in Astronomy Working Group are the representatives for SCGES. Over the last year the representatives were Dara Norman and Lydia Cidale. As of August 2021, the working group will have a new Chair, Mamta, and Co-chair, Priya Hasan.

#### Relationship between the SCGES representatives and the officers of the union

The representative and co-representative are not officers of the IAU. However the WIA WG is an executive committee of the IAU and there is a representative of the executive committee on the organizing committee for the IAU WIA WG.

#### Webpages dedicated to gender equality or women in science

The WIA WG has a dedicated website:

(https://www.iau.org/science/scientific bodies/working groups/122/womeninastronomy/)

as part of the IAU web presence, as well as a page describing the structure of the working group and Organizing committee membership within IAU:

(https://www.iau.org/science/scientific bodies/working groups/122/).

#### Existence of a structure for gender equality or women in science inside the union

The Women in Astronomy working group (WIA WG), formed in 2003, is the main structure for gender equity within the union. Additional affinity groups that have tangential concern for gender equity issues related to women and intersectional identities include the Working Group on Astronomy for Equity and Inclusion formed in 2012. Other offices within the IAU also address gender equity concerns as part of their overall mission, including the Office of Astronomy for Development, the Office for Young Astronomers and the Office of Astronomy for Education.

#### Existence of a budget for gender equality or women in science activities

There is no dedicated budget for gender equity or women in astronomy activities, however funds have been made available for initiatives dedicated to and in service of gender equity and women in astronomy activities.

#### Existence of explicit policies for gender equality

The IAU has a number of policies that exist to improve gender equity. These include:

- A Code of Conduct, that includes anti-harassment language at all IAU events;
- Reviews and monitoring of gender equity with respect to (invited) speakers in proposals for IAU symposia;
- A new Junior membership category to improve the gender balance across the membership since the percentages of women in astronomy ages 30-40 is higher (30%) than in the membership generally.

In Strategic Plan 2020-2030:

• Future plans for searchable keywords for members in the IAU directory (entered on a voluntary basis) that allow for gender equity when searching for experts on particular topics.

#### Activities to promote gender equality or women in science inside the union

The IAU has a number of activities that exist to promote gender equity. These include:

Monitoring of the percentages of female IAU members by member country;

- Promotion and monitoring of gender equity across leadership positions;
- Explicit endorsement by WIA WG to support symposia that address issues of gender equity;
- Sessions at General Assembly meetings dedicated to discussions around topics of gender equity and equity across gender intersectional concerns;
- Women in Astronomy Lunches at the General Assembly meetings;
- Educational activities that promote women and girls to participate in astronomy both as a career and as a passion;

#### In Strategic Plan 2020-2030

- Future plans include the possibility of training sessions at International Schools for Young Astronomers, (ISYAs), and IAU events;
- The IAU Office of Astronomy for Development (OAD), established in 2011, has a goal to positively affected gender equity, and other UN Strategic Development Goals (SDG), through OAD projects on all of the populated continents.

#### Research activity about gender equality or women in science

Currently there are no research activities underway. It is unclear that this would be relevant for IAU.

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

The Women in Astronomy Working Group's Organizing Committee had planned to make the gender gap study the central part of 3 of 4 sessions at the IAU annual meeting which was originally scheduled to take place in Busan Korean in 2021. This was to include working discussions at the WIA lunch centered around how to address Gender Gap recommendations within the IAU. Unfortunately because of the Covid-19 pandemic, these activities did not occur. We plan to identify other ways to proceed with these plans in the coming year.

#### Specific initiatives related to gender equality or women in science in Covid times

There have been no activities planned related to gender equality or women in science in Covid times currently.

# International Council for Industrial and Applied Mathematics (ICIAM)

https://iciam.org

#### Representative and deputy representative

Representative: Carol Woodward; Deputy Representative: GuiYing Yan.

#### Relationship between the SCGES representatives and the officers of the union

The ICIAM Representative and Deputy Representative are members of two societies included in the ICIAM. They are not nor have been officers of the union. They report to the officers via email correspondence.

#### Webpages dedicated to gender equality or women in science

In the past year, ICIAM created two new web pages. One focuses on ICIAMS's activities in support of gender equality (<a href="https://iciam.org/iciam-activities-support-gender-equality">https://iciam.org/iciam-activities-support-gender-equality</a>) and includes information on the Gender Gap in Science Project and the SCGES statement on Covid-19 as well as recent news articles on the topic. The goal is to grow the content of this page to reflect activities of member societies in support of gender equality.

In addition, ICIAM created a page about the Standing Committee on Gender Equality in Science (<a href="https://iciam.org/standing-committee-gender-equality-science-scges">https://iciam.org/standing-committee-gender-equality-science-scges</a>) that describes the standing committee and its activities.

#### Existence of a structure for gender equality or women in science inside the union

ICIAM has no explicit structures to promote gender equality.

#### Existence of a budget for gender equality or women in science activities

There is no explicit budget for gender equality activities in ICIAM.

#### Existence of explicit policies for gender equality

ICIAM holds a large Congress every four years as its main scientific venue. ICIAM's Bylaws state that the Scientific Program Committee and invited speakers be "balanced with respect to geography, discipline, and gender" (see the file, "ICIAM Bylaws (11 May 2013)" at the bottom of this page <a href="https://iciam.org/iciam-bylaws">https://iciam.org/iciam-bylaws</a>).

ICIAM has created a canvassing committee for its prizes to "identify qualified candidates, representing ICIAM's diversity (gender, background and geography), for the five ICIAM prizes and encourage their nominations in response to the call from the subcommittees" (see "Rules for ICIAM Prizes" and "Canvassing Committee for the 2023 ICIAM Prizes" files at the bottom of this page: <a href="https://iciam.org/iciam-prizes">https://iciam.org/iciam-prizes</a>).

#### Activities to promote gender equality or women in science inside the union

In recent years, one third of the ICIAM Officers (executive committee) have been women.

ICIAM actively participated in the Gender Gap in Science Project by sending participants to two of the regional workshops, Asia and Latin America, and actively disseminating work for the General survey about gender issues, which was the first task of the project. ICIAM also actively disseminated the results of the different tasks of the project, with multiple articles in our newsletter, ICIAM Dianoia, and multiple messages to our member societies, asking them to relay in their countries.

ICIAM also actively participated in creating the Standing Committee for Gender Equality in Science in that ICIAM representative, Maria J. Esteban, was one of the five persons who actively participated in the creation of the committee and the preparation of the MOU. ICIAM has also had several newsletter articles on the activities of the Gender Gap in Science Project and the formation of the SCGES.

#### Research activity about gender equality or women in science

ICIAM is currently funding a study on the results of the Global Survey run during the Gender Gap project, specifically for Mathematics and Applied Mathematics. The work involves redoing the statistical analysis of all answers and interpreting them. At the end of this study, an article with the new results concerning Math and Applied Mathematics will be written.

ICIAM supported the Gender Gap Project and will occasionally support research projects. All such projects must be approved by the Board because ICIAM does not have a research budget.

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

A message was sent to all our members (more than 50 learned societies across the globe) explaining the results of the project with links pointing to results of the three tasks. Member societies were asked to distribute the news among their membership (about 70,000-80,000 persons in total). In the message, we emphasized the importance of implementing the recommendations

A prior message was sent to all our member societies with links to the book and booklet of the Gender Gap in Science Project.

#### Specific initiatives related to gender equality or women in science in Covid times

ICIAM officers approved the SCGES statement on "Standing for Gender Equality in Science in Times of Covid-19" produced by the SCGES. The statement has been linked from the ICIAM website on activities in support of gender equality in science.

#### **International Geographical Union (IGU)**

https://igu-online.org

#### Representative and deputy representative

Representative: Elena dell'Agnese; deputy representative: Céline Rozenblat.

#### Relationship between the SCGES representatives and the officers of the union

The representative and deputy representative are both vice-presidents of the union.

#### Webpages dedicated to gender equality or women in science

The union does not have a website specifically devoted to gender equality in science.

#### Existence of a structure for gender equality or women in science inside the union

The union is structured by commissions and task forces. One of the IGU 43 Thematic Commissions is called **Commission on Gender and Geography** and has the *overall mission* "to create a comfortable platform for people to exchange ideas concerning feminist and gender studies in geography; present and discuss new research on these issues; and create collaborations in research and other academic work among students and scholars working on these themes". It can therefore be said that the acquisition of gender equality in science is also among its objectives.

In the general website of the Union there is a link to the website of the Gender and Geography Commission, https://igugender.wixsite.com/igugender

Overall, "the Commission on Gender and Geography of the International Geographical Union is an active group with 750 members from 53 different countries in all parts of the world. The Commission has an active program in many countries, organizing one or two meetings each year and expanding its intellectual network through academic publications, newsletters and the website".

#### Existence of a budget for gender equality or women in science activities

Like all Commissions active within IGU, the Gender and Geography Commission receives an annual funding of 1,500 dollars.

#### Existence of explicit policies for gender equality

Beyond the focused activities of the Commission on Gender and geography, the entire articulation of IGU is aimed at the achievement of gender equality in the sciences. Therefore, in the constitution of the board of each commission it is required that there is a gender parity. The support for young scholars is also taking a specific attention to support women equally to men, but also all fluidity gender and LGBTQ+. It also aims to achieve gender parity within its own structure as well. Therefore, it can be considered that in this way it also contributes to the pursuit of gender equality in social and physical sciences, since Geography is in between the two fields.

#### Research activity about gender equality or women in science

Geographical research can enhance the visibility of gender equality issues; specifically, it may make clear, on the one hand, how the world is still profoundly marked by gender inequalities and how, of the individuals who can be defined as poor at the global level, the vast majority are likely to be women. Since the empowerment of women has a key role to play in sustainable development, and the Union has among its goals the pursuit of the UN Sustainable Development Goals (SDGs), geographical research cannot avoid considering gender issues. In this, the role of the research conducted in IGU by both the researchers who refer to the Commission on Gender and Geography and by other geographers who to other commissions is included.

In this perspective, it is quite clear that integrating gender dimension in research content improves quality of results and outcomes, The importance of gender to understanding space and place is quite clear; moreover, feminist geographers are interested in social justice; their work aims at recognizing how gender intersects with identity categories such as age, class, race, and sexuality. The union has a general focus on gender issues and gender equality within all social sectors.

The collection of bibliographical information related to geographical production on COVID is underway; many of these researches also refer to gender issues and how gender has impacted researchers in different ways, also in relation to their gender.

#### **International Mathematical Union (IMU)**

https://www.mathunion.org/

#### Representative and deputy representative

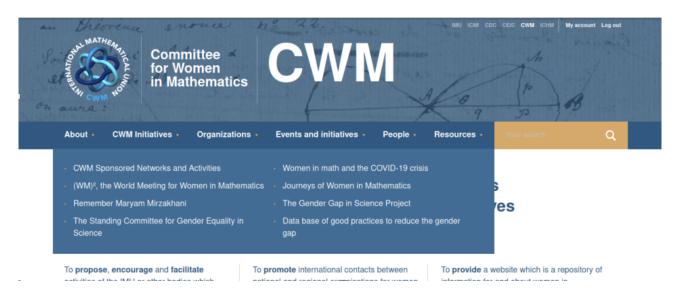
Representative: Marie-Françoise Roy; Deputy Representative: Carolina Araujo

#### Relationship between the SCGES representatives and the officers of the union

The representative Marie-Francoise Roy and deputy representative Carolina Araujo are chair and vice-chair of the Committee for Women in Mathematics (CWM) of the IMU and are not IMU officers. CWM is chosen by the EC and its members are not elected by the IMU General Assembly. There is an Executive Committee representative serving as liaison between CWM and the EC. This person is currently Carlos Kenig, IMU president. The connection is excellent.

#### Webpages dedicated to gender equality or women in science

CWM, similarly to all the committees and commissions of IMU, has a specific section on IMU webpage <a href="https://www.mathunion.org/cwm">https://www.mathunion.org/cwm</a>. IMU archivist is working every week on CWM website.



#### Existence of a structure for gender equality or women in science inside the union

CWM was created in 2015 and has been renewed in 2018. It has 10 members (currently 8 women and 2 men) all over the world. Moreover CoD, an Ad hoc Committee on Diversity, was created by IMU in August 2020. One of its members was proposed by CWM.

#### Existence of a budget for gender equality or women in science activities

CWM has a small budget (20 keuros per year). This budget makes it possible to help various initiatives for women in mathematics mainly in developing countries and to support partly the World Meeting for Women in Mathematics which is taking place since 2018 as a satellite event of the International Congress of Mathematicians, and takes place the day before in the same venue.

#### Existence of explicit policies for gender equality

IMU was an active founding member of SCGES and contributed defining its objectives. SCGES MoU can be considered as an explicit policy of IMU in the domain.

The importance of unconscious bias is outlined by IMU in the page <a href="https://www.mathunion.org/imu-awards/imu-awards-prizes-and-special-lecture">https://www.mathunion.org/imu-awards/imu-awards-prizes-and-special-lecture</a> "The potential impact of unconscious bias on the selection process is a concern for the International Mathematical Union. As humans, many of the decisions that we make are subject to unconscious bias.

Unconscious biases are simply our unintentional preferences that come from our gender, education, culture, etc. Psychologists and neuroscientists tell us that our unconscious mind automatically, rapidly, intuitively and effortlessly categorizes people. This ability enables us to make rapid decisions about people. We do this without having to engage the limited resources of the conscious mind, which are required for most cognitive tasks, such as problem solving and planning. These cognitive shortcuts that reduce the load created by complex information lead to intuitive, but errorprone, decisions." This text was written independently of CWM and was never approved by a vote but appears on good place on IMU website.

Another relevant example is the International Day of Mathematics (on March 14) where the gender balance is systematically reached.

#### Activities to promote gender equality or women in science inside the union

There is an effort towards gender balance in the choice of lecturers at meetings organized directly by IMU or in IMU panels. The result is, for example, a stable proportion of about 15 % invited lecturers at ICM, while the proportion of women among authors of mathematical papers is about 30%, but the number of papers authored by women in top math journals remains under 10%. In terms of IMU officers, one of the two vice-presidents has been a woman for several terms already, Ingrid Daubechies has been the only woman IMU president. The current EC has no other woman except the VP. This is considered by many IMU members as a failure and an anomaly and it is hoped it will not be the same in the next EC.

#### Research activity about gender equality or women in science

"Demonstrate how integrating gender dimension in research and innovation content improves quality of results and outcome", which is one of the objectives defined by the Gender Summit does not appear as really relevant in our discipline, except of course for research on the history of mathematics. Indeed, mathematics is universal.

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

IMU was co-leading the project with IUPAC and is the official publisher of the book reporting on the project. After the official end of the project, IMU launched an internship in common with ICIAM to study in more details the results in mathematics and applied mathematics, and in Africa. The data base of good practices to reduce the gender gap in science is hosted by IMU website. Several virtual meetings were organized by CWM for its so called 150 CWM ambassadors, in Europe, Africa, Asia and Oceania and soon in America and it contained systematically a presentation of the results of the Gender Gap in Science Project and its recommendations. However, the recommendations of the Gender Gap in Science Project are not systematically implemented by IMU. For example, the recommendation "Add 18 months per child to all age-limits in scientific awards for people having taken care of children." is not currently followed by IMU and the age limit of the Fields medal for example (40 years) does not take into account maternity leaves or child care.

#### Specific initiatives related to gender equality or women in science in Covid times

There is a specific webpage on CWM website with testimonies and a bibliography. CWM also supported the film "Words of Women in Mathematics in the Time of Corona". IMU suggested to SCGES to issue a statement, since it was clear that "Scientists around the world have been affected by the Covid-19 pandemic. However, not all scientists are affected in the same ways and to the same extent. Women are hit particularly hard, especially those at an early stage of their careers."

#### **International Union of Biochemistry and Molecular Biology (IUBMB)**

#### https://iubmb.org

#### Representative and deputy representative

Representative: Alexandra Newton; deputy representative: Ilona Concha Grabinger

#### Relationship between the SCGES representatives and the officers of the union

Alexandra Newton is President of IUBMB; Ilona Concha Grabinger serves on the Executive Committee of IUBMB as Member of Congresses and Focus Meetings

#### Webpages dedicated to gender equality or women in science

https://iubmb.org/diversity-and-inclusion/

IUBMB is committed to ensuring diversity and inclusion in all of its leadership, training and education missions in the field of biochemistry and molecular biology.

As part of our mission, we are pleased to highlight our Student Ambassador Bri Bibel's blog page on Women in Science, where you can read about many of the influential scientists who shaped the molecular biosciences. https://thebumblingbiochemist.com/lets-talk-science/women-in-science/

#### Existence of a structure for gender equality or women in science inside the union

The IUBMB Leadership exemplifies the commitment of IUBMB to gender equality, diversity, and inclusion: the President is a woman (first woman in the Americas to serve as President), and approximately 40% of the Executive Committee is women. This strong commitment to having gender equality is evident in its committee composition: the newly reconstituted committees for the new 2021-2024 triennium are composed of approximately 50% women on each committee except Publications. This committee is unbalanced because all the Editor-in-Chief positions of the IUBMB journals are held by men. New searches are ongoing for two of the journals, and potential woman candidates are being actively pursued. Under the leadership of a new Editor-in-Chief for the flagship journal, IUBMB Life, a new editorial board has just been put in place and it is 50% woman. This expected to be the norm going forward.

#### Existence of a budget for gender equality or women in science activities

UBMB is committed to gender equality in all of its education and training fellowships. In the past year, 58% of fellowship awardees were woman and included women from Africa, Europe, Asia/Oceania, and the Americas.

The PROLAB program is a joint venture between the Pan-American Association for Biochemistry and Molecular Biology, the International Union of Biochemistry and Molecular Biology, and the American Society for Biochemistry and Molecular Biology. In the past year, 70% of awardees were women.

#### Existence of explicit policies for gender equality

UBMB seeks to advance the international molecular life sciences community by:

- Promoting interactions across the diversity of endeavours in the molecular life sciences
- Creating networks that transcend barriers of ethnicity, culture, gender and economic status
- Creating pathways for junior scientists to fulfil their potential
- Providing evidence-based advice on public policy

- Promoting the values, standards and ethics of science and the free and unhampered movement of scientists of all nations.
  - Promoting diversity and inclusion in all its activities.

#### Activities to promote gender equality or women in science inside the union

IUBMB prioritizes gender equality in its leadership and in all its activities, including committee membership, fellowship awards, funding of meetings, and selection of Jubilee Lecturers.

#### Research activity about gender equality or women in science

The IUBMB has no specific activities to study gender equality in science but actively follows the literature and reports on this, including the hallmark Gender Gap in Science Project study.

### Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

The IUBMB actively promotes the study on its website and presentation of the IUBMB at meetings.

#### Specific initiatives related to gender equality or women in science in Covid times

In the June 2020 Newsletter, Bri Bibel our Student Ambassador, described how volunteers around the globe, including a large number or women, helped her translate her post on how Covid-19 PCR tests work into 30 languages, as reported here: https://network.febs.org/posts/64100-covid-19-knows-no-borders-neither-does-understanding-the-basis-of-covid-19-tests

The resource page is here: https://bit.ly/covid19bbresources

#### Other relevant information

The President of IUBMB is a strong advocate for women in science and, along with her leadership team, ushers a new era of expanding opportunities for women biochemists around the world.

#### **International Union of Biological Sciences (IUBS)**

#### http://www.iubs.org

#### Representative and deputy representative

Representative: Guy Smagghe; deputy representatives: Nathalie Fomproix and Sarita Maree

#### Relationship between the SCGES representatives and the officers of the union

None of the representative or deputy representatives are officers of IUBS but Sarita Maree and Guy Smagghe are both members of the IUBS Executive Committee. Nathalie Fomproix is the Executive Director of IUBS. They are all in close contact with the officers of the Union.

#### Webpages dedicated to gender equality or women in science

The IUBS website has one page dedicated to gender equality in science:

http://www.iubs.org/iubs-activities/new-initiatives/gender-equality-in-science.html

This page links to the Standing Committee on Gender Equality, to the IUBS Working Group on Gender Equality and to the project Gender Gap.

#### Existence of a structure for gender equality or women in science inside the union

IUBS has established a working group on Gender Equality:

John Buckeridge, former IUBS President,

Nathalie Fomproix, IUBS Executive Director

Sarita Maree, IUBS Executive Member

Annelies Pierrot-Bults, former IUBS Treasurer

Guy Smagghe, IUBS Executive Member, IUBS representative and vice-chair of the SCGES

Lucilla Spini, bio-anthropologist and primatologist

#### Existence of a budget for gender equality or women in science activities

A small budget is dedicated to the IUBS participation in SCGES and to run some activities with the working group on Gender Equality. On the other hand, the sponsoring of programmes, conferences and Young Scientists Grant is subjected to IUBS gender policy (see below).

#### Existence of explicit policies for gender equality

Conferences sponsored by IUBS must have females in the organizing/scientific committees. There should be gender balance in the list of invited speakers.

The conference awarded with a Young Scientists Grant should invite an equal number of male and female young scientists.

Chairs of IUBS scientific programmes/new initiatives are asked to nominate male and female experts in any steering committee that they establish.

The IUBS Nominations Committee should actively promote the nomination of women for IUBS executive positions through National/Ordinary and Scientific member bodies.

#### Activities to promote gender equality or women in science inside the union

The IUBS sponsoring of IUBS scientific programmes, conferences, and Young Scientists Grants are subjected to an active involvement of women in these activities (see above).

An email was sent to our members in order to inform them of the establishment of the Working Group on Gender Equality and to collect information on their successes and needs regarding gender equality. The information received will be posted on our website as best practices, and will be taken into account by the Working Group for further activities.

#### Research activity about gender equality or women in science

If so describe. "How integrating gender dimension in research content improves quality of results and outcomes." This is not necessarily relevant for all sciences.

Research activity about gender equality or women in science in IUBS is conducted within the context of writing *ad hoc* articles/papers and/or identifying relevant information on gender equality and/or women in science for the IUBS website. For instance, *ad hoc* research was conducted for the invited paper was published in the special issue of Pure and Applied Chemistry: "Women must be equal partners in science: gender-balance lessons from biology", <a href="https://doi.org/10.1515/pac-2020-1210">https://doi.org/10.1515/pac-2020-1210</a>.

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

The report as well as the activities of the project are available on IUBS website.

The Gender Gap project was presented at the last IUBS General Assembly.

The IUBS President, Pr. LS Shashidhara participated in a round table discussing the issue of gender gap in sciences and the conclusions of the collaborative project at the celebration of the International Day of Women and Girls in Science 2020 at UNESCO headquarters in Paris.

During the IUBS session at the International Congress of Zoology, 22-24 November 2021, the project will be presented by Igle Gledhill.

#### Specific initiatives related to gender equality or women in science in Covid times

An article on the gender lens applied to the COVID-19 Pandemic from a biological sciences perspective is in preparation.

#### Other relevant information

We are planning to organize mini-conferences on Gender Equality, the first one should be organized just prior the International Congress of Zoology (South Africa / hybrid conference). Given current difficulties in travel regulations due to the COVID-19 Pandemic, the mini-conferences will be held in hybrid form (in presence and online).

#### **International Union of Geological Sciences (IUGS)**

(https://www.iugs.org/)

#### Representative and deputy representative

Representative: Silvia Peppoloni; deputy representative: John Ludden.

#### Relationship between the SCGES representatives and the officers of the Union

The representative and deputy representative are officers of the IUGS.

#### Webpage dedicated to gender equality

A specific page of the IUGS website (<a href="https://www.iugs.org/scges">https://www.iugs.org/scges</a>) is dedicated to gender equality and to the recent MoU that IUGS signed with the Standing Committee on Gender Equality in Science (SCGES).

#### Existence of explicit policies for gender equality

During the IUGS Council meeting in October 2020 the Resolution on Diversity and Inclusivity in all IUGS/IGC activities and functions was released. It affirms that:

"As a guiding principle, IUGS/IGC organisers and leaders should strive to encourage diversity and inclusion when planning and delivering all activities and functions (including but not limited to governance, panels, technical sessions, workshops, nominations for awards, and symposia). Special care should be also placed to include women, people from diverse cultures, and colleagues from low- and middle-income countries as keynote speakers or equivalent positions of importance and visibility at the International Geological Congress. All geoscientists of the world should have equal access and opportunity to contribute to the advancement of global geoscience. The IUGS must be at the forefront of these efforts globally."

Following the principles inspiring that document, on 29<sup>th</sup> November 2020, IUGS signed a MoU with the Standing Committee on Gender Equality in Science (SCGES). IUGS joined the SCGES and will act for supporting women and girls' equal access to science education and fostering equal opportunity and treatment for females in their careers. The IUGS hopes to give strong impulse to policies for fostering the presence of women in geosciences and within its community.

#### As part of SCGES, IUGS will:

- endeavor to promote gender equality in its own structure, proceedings and scientific discipline, noting the recommendations of the Gender Gap in Science Project;
- appoint a representative to SCGES; it shall also appoint a deputy representative who may stand in for the representative in case of need; it shall also appoint a deputy representative who may stand in for the representative in case of need;
- support its representative in contributing to and attending meetings;
- share with SCGES, and especially with its chair, all relevant information that can help promote gender equality in science;
- make a contribution to SCGES's common funds decided on a year-by-year basis; this is currently set at 300 € and will be used to set up and run the SCGES website. The contribution of each partner will be determined annually by mutual agreement by the partners. The initial contribution will made within 3 months of signing and future contributions will be made between 1st January and 28<sup>th</sup> February each year thereafter;
- within the limits of its capacity, set up projects and initiatives to promote gender equality in science; for this purpose, they may seek cooperation with other signatories of the present Memorandum of Understanding, but also with other organizations and institutions;

- decide whether to contribute to projects and initiatives led by other partners and endorsed by SCGES, and consider the modalities of this contribution;
- share communications relevant to gender equality in science with its members and through its networks, by all means at its disposal, including social network accounts, website, newsletters and journals, electronic and in print;
- call upon its member organizations or its representatives, if relevant, to set up national or regional initiatives to promote gender equality in science.

#### Activities to promote gender equality or women in science inside the Union

The IUGS is working to develop initiatives and activities to promote gender equality in its community. A survey to be addressed to its constituent groups (commissions, boards, task groups) will investigate the current presence of women in the IUGS and what strategies are carrying out to guarantee gender balance in each group. Based on what will emerge from the survey, it will be possible to develop guidelines and recommendations to ensure that women are well represented and hold positions of officers in the different groups.

Moreover, from time to time, the IUGS will decide whether to contribute to projects and initiatives with the goal of gender equality, led by other partners and endorsed by SCGES.

In any case, the IUGS will share communications relevant to gender equality in science with its members and through its networks, by all means at its disposal, including social network accounts, website, newsletters and journals, electronic and in print.

Among the intentions of the Union, there is the will to carry out research activity about gender equality, in particular focused on how integrating gender dimension in research content improves quality of results and outcomes in geosciences. To this end, the IUGS has a close cooperation with the IAPG - International Association for Promoting Geoethics (<a href="https://www.geoethics.org">https://www.geoethics.org</a>), which is one of its affiliated organizations. The IAPG develops basic and applied research on ethical and social issues that affect the scientific community, promoting values such as inclusiveness, equity and respect for the dignity of people in the world of geosciences. Among the several activities, the IAPG is carrying out the "Zero tolerance towards Harassment and Discrimination" initiative, which is aimed at sensitizing the geoscientific community to the problems of harassment and discrimination against women, as well as to promote equal opportunities for access to roles and offices for women geoscientists:

"... A respectful and fruitful working environment is fundamental for maintaining a high level of professionalism and for assuring an ethical conduct while practicing geosciences. Therefore, any kind of harassment and discrimination cannot be tolerated and must be denounced. Harassment and discrimination offend the dignity of the person, threaten the serenity of the working environment, limit the individual's freedom of choice, and seriously undermine integrity, quality and credibility of the geoscience community. These kinds of behavior prevent individuals from taking ethical decisions ... ".

(from the IAPG web page: https://www.geoethics.org/harassment-discrimination).

# International Union of History and Philosophy of Science and Technology (IUHPST)

http://iuhpst.org

#### Representative and deputy representative

Representative: Catherine Jami; Deputy Representative: Delia Kesner

#### Relationship between the SCGES representatives and the officers of the union

IUHPST is composed of two divisions: the Division of History of Science and Technology (DHST) and the Division of Logic, Methodology and Philosophy of Science and Technology (DLMPST). They operate independently for membership and congresses, but work together as IUHPST within the International Science Council (ISC).

Catherine Jami, Representative, was appointed by DHST, of which she was Secretary General (2013-2021). Until 31 December 2021, she is the Secretary General of IUHPST.

Delia Kesner, Deputy representative, was appointed by DLMPST.

#### Webpages dedicated to gender equality or women in science

Not yet created.

#### Existence of a structure for gender equality or women in science inside the union

Since its General Assembly held virtually in July 2021, DHST has a Gender and Diversity Champion. There will also be a Gender and Diversity Champion of IUHPST pending approval by the General Assembly of DLMPST, which will convene in 2023.

#### Existence of a budget for gender equality or women in science activities

The only funding specifically allocated to promoting gender equality is IUHPST's annual contribution to SCGES, paid alternatively by DHST and DLMPST. This being said, IUHPST/DHST allocates a yearly budget of up to USD2,400 to its Commission on Women and Gender in Science (CWGS).

#### Existence of explicit policies for gender equality

Not yet as such.

#### Activities to promote gender equality or women in science inside the union

The IUHPST/DHST Council is currently working on a Respectful Behavior Policy for its congresses. This is proving a complex task, and consultation on the matter among SCGES members would be useful.

The figures given in the survey of scientists as part of the Gender Gap in Science Project indicate that this is quite an important matter to address.

#### Research activity about gender equality or women in science

DHST has an Historical Commission on Gender and Women in Science, Technology and Medicine (CWGSTM) since 1981. Its founding President is Margaret Rossiter (Cornell University). Its aims are to promote communication among scholars in the field, organize thematic meetings and symposia, compile bibliographies, preserve records, and encourage research on comparative international history of women in science. At present, its president is María Jesus Santesmases Navarro (CSIC, Madrid).

One can mention, among a wealth of historical studies on women and gender in sciences the publication, on the occasion of the International Year of the Periodic Table (IYPT, 2019), of an edited

volume entitled *Women in Their Element: Selected Women's Contributions to the Periodic System* (eds Annette Lykknes and Brigitte Van Tiggelen (World Scientific Publishing, 2019). This book resulted from a symposium held as part of IYPT.

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

In 2019, DLMPST held a symposium to present the Gender Gap in Science Project during its congress, which was held in Prague. In 2021, DHST held a plenary symposium devoted to presenting some of the project's results during its congress.

DHST has collected data on participants (890 altogether) in this (online) congress in order to produce gendered statistics on session organizers, chairs and contributors, so as to have more information on the international community of historians of science and technology.

#### **International Union of Pure and Applied Chemistry (IUPAC)**

#### https://iupac.org

#### Representative and deputy representative

Representative: Mei-Hung Chiu; Mark Cesa

#### Relationship between the SCGES representatives and the officers of the union

Mei-Hung Chiu, Elected member of Bureau, IUPAC

Mark Cesa, Former President of IUPAC, member of IUPAC Finance Committee

#### Webpages dedicated to gender equality or women in science

IUPAC Global Women's Breakfast <a href="https://iupac.org/gwb/">https://iupac.org/gwb/</a>

IUPAC Distinguished Women in Chemistry or Chemical Engineering

Please see the website at https://iupac.org/what-we-do/awards/iupac-distinguished-women/

#### Existence of a structure for gender equality or women in science inside the union

IUPAC Council approves the Composition and Terms of Reference of the Committee on Ethics, Diversity, Equity and Inclusion, CEDEI, during the 51st IUPAC COUNCIL MEETING on 14th August 2021.

#### Existence of a budget for gender equality or women in science activities

Budget for sponsoring GWB event project

A budget for CEDEI will be included in the 2022-2023 biennium budget.

#### Existence of explicit policies for gender equality

IUPAC has a specific policy against sexual harassment, issued 8 April 2021.

#### Activities to promote gender equality or women in science inside the union

IUPAC Distinguished Women in Chemistry or Chemical Engineering, biennial awards IUPAC Global Women's Breakfast

#### Research activity about gender equality or women in science

Sponsored "The Gender Gap in Chemistry-Building on the ISC Gender Gap Project", please see the descriptions of the project at IUPAC website, https://iupac.org/projects/project-details/?project nr=2020-016-3-020

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

Presentation at 2021 American Chemical Society Great Lakes Regional Meeting: "Toward Gender Equality in the Sciences: IUPAC and the ISC Gender Gap Project," M. C. Cesa and M.-H. Chiu, 6 June 2021, GLRM 36.

Chiu, M. H., & Cesa, M. (2020, Jul). Gender Gap in Science: A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences: How to Measure it, How to Reduce It?. *Chemistry International*, 42(3), 16-21

IUPAC Official Journal: *Pure and Applied Chemistry Special Issue on Gender Gap in Science*. Guest editors: Mark Cesa and Mei-Hung Chiu

#### Specific initiatives related to gender equality or women in science in Covid times

See: https://iupac.org/diversity-and-inclusion/

IUPAC has endorsed the SCGES position statement, 'Standing for Gender Equality in Science in times of Covid-19'

#### Other relevant information

IUPAC's Core Values, from its Strategic Plan, include:

- The Union will observe the basic policy of political nondiscrimination and affirms the rights of chemists of any country to adhere to or to associate with international activity in the field of chemistry without regard to race, religion, or political philosophy.
- o Scientific excellence and objectivity are the cornerstones of all IUPAC work.
- o IUPAC will value collaboration and communication among all our stakeholders.
- o IUPAC will strive for diversity and inclusiveness in all forms.
- o IUPAC members will respect each other and the Union.
- o IUPAC members will uphold the highest standards of transparent, responsible and ethical behavior.

#### **International Union of Pure and Applied Physics (IUPAP)**

https://iupap.org

#### Representative and deputy representative:

Representative: Dr Gillian Butcher, IUPAP Vice President at Large: Gender Champion; Deputy Representative: Dr Rudzani Nemutudi, IUPAP Associate Secretary General

#### Webpages dedicated to gender equality or women in science

The new IUPAP website contains the webpage <u>Diversity in Physics</u>, which gives an overview of the need for diversity in science, along with some of the activities of IUPAP in fostering diversity. The link is under the Strategic Plan on the main tabs.

Further pages on specific activities that are linked from here are:

- <u>Waterloo Charter for Gender Inclusion and Diversity in Physics</u>: sets out guiding principles for gender diversity and inclusion, with recommended policies. This is due to be proposed and voted on at the 2021 October General Assembly
- <u>Gender Champion Reports</u>: the reports that review the IUPAP's own statistics on gender, principally its sponsored conferences,
- <u>WG5: Women in Physics</u>: summary pages of the Working Group (which currently links to a separate website which contains most of the archive and ongoing content)
- <u>Gender Gap in Science Project</u>: contains summary information on the project, and links to the Gender Gap Project pages.

#### Existence of a structure for gender equality or women in science inside the union

Two main structures exist within IUPAP for gender equality.

The Working Group for Women in Physics, WG5, was created in 1999 by a resolution of the General Assembly, to survey the present situation and report to the Council and the Liaison Committees, and to suggest means to improve the situation for women in physics. WG5 reports back at Commission and Committee Chair meetings of IUPAP, and brings resolutions to the General Assembly. It has initiated 3 surveys at approximately 5-year intervals, including the Global Survey of Physicists in 2010, and prompted the Global Gender Gap Survey of Scientists in 2018.

WG5 now works well beyond these original aims. WG5 consists of members representing broad geographic regions, some of whom work with regional women in physics groups. WG5 has set up a global system of Country Teams, each with a Leader; at present 84 are listed, more than the number of members of IUPAP. These teams deliver papers on progress in their country at approximately 3-year intervals at the IUPAP International Conference on Women in Physics ICWIP, at which the WG5 members function as the International Organising committee and are responsible for organising plenary speakers and workshops.

The role of Vice-President at Large with Gender Champion responsibilities was created in 2011 to ensure that IUPAP as an organisation is inclusive and diverse. The Gender Champion monitors and reports on gender representation within all IUPAP structures, including its Commissions, and at IU-PAP-Sponsored conferences. Through the joint actions of the Gender Champion and IUPAP leadership, a number of rules have been put in place. As an example, a 12-person Commission must have at least 4 women on the committee. This has proved to be very successful: the process of nominating Commission members is highly competitive, and member countries now vie to nominate women.

#### Existence of a budget for gender equality or women in science activities

The WG receives an annual budget of 2 500 Euros, mostly to cover member expenses to attend WG meetings, in line with other IUPAP working groups. WG5 also receives funding of 15 000 Euros to distribute travel grants to women from developing countries, for 2 years out of the 3-year GA cycle. The WG is also awarded 17 000 Euros for its International Conference on Women in Physics held every three years. In 2021, the Travel Grants were changed into Technology Grants to enable women to attend the virtual ICWIP conference.

#### Existence of explicit policies for gender equality

New Statutes, By-Laws and Articles have been created, which will be voted on in the October 2021 GA. These specifically include "fostering inclusiveness and diversity in physics" amongst the Union's purpose. The new Articles include the requirement that amongst the Executive Council Officers (President, President Designate and Immediate Past President) that at least one will be a woman and at least one will be a man, and likewise for the Commission Officers (Chair, Vice Chair and Secretary). The Commission membership, as noted above, already has the requirement that at least 4 out of the 12 members must be women.

There are specific requirements for IUPAP sponsored conferences. The conference organisers must report on the gender balance of plenary/invited speakers, speakers, delegates, organising committee(s). The organisers must also put their statement on harassment (Code of Conduct) on the conference webpages and appoint people responsible for dealing with claims of harassment. These are all criteria on which applications for IUPAP funding are assessed.

WG5 explicitly includes men in initiatives to foster gender equality. The WG includes at least one man, and a Country Team attending ICWIP must have at least one man if the size of the team exceeds 4 people.

#### Activities to promote gender equality or women in science inside the union

IUPAP's recent succession of Presidents and Presidents-Elect have played a major role in vigorously campaigning for women within the Union. In this they are joined by the Associate Secretary General. Through both authority and influence, these members of leadership are changing the face of IUPAP. IUPAP Commission C1, Policy and Finance, is key to this movement. The current President-Elect is a woman.

IUPAP does not have individual members. National members are represented by national delegates, during GAs, and through appointed national liaisons outside GAs. In some countries, WG5 Country Teams are well integrated with physical societies and liaisons. In others, fostering gender equality through national liaisons members is a challenge.

#### Research activity about gender equality or women in science

The database collected by the Global Survey is significant and has not yet been fully exploited. The Global Gender Gap Survey was designed to be compatible with the IUPAP Global Survey of Physicists of 2010 and the process to carry out the longitudinal aspect, with analysis from previous surveys, has been initiated.

Inclusion of a gender dimension in research questions and research design is relevant in certain fields, such as IUPAP WG12 Energy.

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

The Gender Gap in Science was regularly reported on in the IUPAP newsletters. The WG5 Chair(s) and Gender Champion(s) have presented results to the Executive Meetings and General Assembly, attended by Liaison members and Commission Chairs.

The International Conference on Women in Physics, held online July 2021, had a plenary session on the Gender Gap project, with talks from Igle Gledhill, Helena Mihaljević (joint data-backed study of publication patterns), and Rachel Ivie (Global Survey of Scientists). One of the workshops also focused on Women in Physics in Developing Countries and included a special talk by Susan White on results for countries with high Human Development Index and for lower HDI. Summaries of the plenary and workshop will appear in the Proceedings, to be published by the American Institute of Physics.

Physicists participated in a special issue of Pure and Applied Chemistry devoted to the Gender Gap project. Publications using the project data are listed on the project site. The Publication Pattern website has been used to generate data for at least one national conference of an IUPAP member. Data is being used in webinars and presentations, with the intent that the choice of initiatives should be evidence-based.

#### Specific initiatives related to gender equality or women in science in COVID-19 times

IUPAP has released a statement on the gendered impact of COVID-19 and included articles on it in its newsletter. It has contacted its conference organisers with the request that conference fees be reduced for those financially impacted, as articulated in the SCGES statement.

The IUPAP Conference on Women in Physics was virtual, and specific efforts were made to enable women from developing countries to attend through grants for wifi equipment, data, screens and devices.

#### Other relevant information

Membership of IUPAP is through country liaisons, who act as representatives for their country's national physical society(ies) and who may or may not be physicists. Most of the work with physicists is carried out by the Commissions, of which there are 19. Routes to a wider influence are therefore through the Liaisons (geographical) and Commissions (topical) and through WG5 directly to women physicists.

# **International Union for Physical and Engineering Sciences in Medicine (IUPESM)**

https://2018.iupesm.org

#### Representative and deputy representative

Representative: Lenka Lhotska; deputy representative: Loredana Marcu

#### Relationship between the SCGES representatives and the officers of the union

Are the representative and deputy representative officers of the union? Yes, they are.

#### Webpages dedicated to gender equality or women in science

https://2018.iupesm.org/wimpbme/

#### Existence of a structure for gender equality or women in science inside the union

Women in Medical Physics and Biomedical Engineering committee (WiMPBME)

#### Existence of a budget for gender equality or women in science activities

The budget is limited to an amount that would usually cover travel/accommodation expenses for an invited speaker to our congresses.

#### Existence of explicit policies for gender equality

N/A

#### Activities to promote gender equality or women in science inside the union

Some of our aims and activities to promote gender equality inside the union:

- Increase the visibility and participation of women within IFMBE (International Federation of Medical and Biological Engineering) and IOMP (International Organisation for Medical Physics).
- Gather and disseminate information regarding the status of women in IFMBE and IOMP
- Acknowledge research success of female members
- Develop mentoring programs for young women and/or women from developing countries.
- Conduct research into the status of women in IOMP and IFMBE.

#### Research activity about gender equality or women in science

WiMPBME is organising on a regular basis during our congresses several special symposia dedicated to the topic of gender equity in STEM fields, followed by discussions. For the forthcoming World Congress in Medical Physics and Biomedical Engineering 2022 (Singapore) we have already proposed three sections for women in STEM on the following topics: (working from home during lockdown, (2) leadership and promotion, (3) publishing and grant writing for early career professionals. This is an opportunity for other professionals related to STEM fields to share their research.

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

The aforementioned congresses are great opportunities to disseminate research results undertaken by WiMPBME and other interested parties. Furthermore, our committee is active in publishing research data and survey results conducted within WiMPBME. Below are some recently published articles:

- M. Frize, L. Lhotska, L. Marcu, M. Stoeva, G. Barabino, F. Ibrahim, S. Lim, E. Kaldoudi, AM Marques da Silva, P. Tan, V. Tsapaki, E. Bezak. The impact of CoVID-19 pandemic on gender-related work from home in STEM fields- report of the WiMPBME Task Group. *Gender, Work & Organization* 28(S2):378-396 (2021)
- G. Barabino, M. Frize, F. Ibrahim, E. Kaldoudi, L. Lhotska, L. Marcu, M. Stoeva, V. Tsapaki, E. Bezak. Solutions to gender balance in STEM fields through Support, Training, Education and Mentoring report of the International Women in Medical Physics and Biomedical Engineering Task Group. *Science & Engineering Ethics* 26: 275-292 (2020)

Furthermore, a number of publications on gender equity written by members of our organisation can be found at:

https://2018.iupesm.org/wimpbm-articles/

#### Specific initiatives related to gender equality or women in science in Covid times

A survey was conducted among women in STEM (medical physics and biomedical engineering) during Covid-19 regarding remote working to assess and gender inequalities and gender-related challenges that were encountered during the lockdown. The quantitative results have already been published (see above article #1) while the qualitative data is currently undergoing processing and interpretation to be published in the near future.

#### **International Union of Psychological Science (IUPsyS)**

https://www.iupsys.net

#### Representative and deputy representative

Representative: Pam Maras

Deputy Representative: Ava D. Thompson

#### Relationship between the SCGES representatives and the officers of the union

Pam Maras: IUPsyS President

Ava D. Thompson: Past Executive Committee Member of IUPsyS

#### Webpages dedicated to gender equality or women in science

Our website is being redesigned

#### Existence of a structure for gender equality or women in science inside the union

Our processes for election to office require active considerations of gender as well as regional representation

#### Existence of explicit policies for gender equality

IUPsyS subscribes to and adheres to the ISC statement on circulation of scientists <a href="https://www.iupsys.net/events/congress/free-circulation-of-scientists.html">https://www.iupsys.net/events/congress/free-circulation-of-scientists.html</a> including opposing 'discrimination based on such factors as ethnic origin, religion, citizenship, language, political or other opinion, sex, gender identity, sexual orientation, disability, or age'.

#### Activities to promote gender equality or women in science inside the union

All activity takes account of gender

#### Other relevant information

Three of four officers of IUPsyS are for the first-time female: President, Secretary General and Treasurer. We fill be starting to implement a new strategic plan and will consider gender explicitly as part of this.

#### **International Union of Soil Sciences (IUSS)**

#### https://www.iuss.org

Representative: Laura Bertha Reyes Sánchez, President of the IUSS

**Deputy representatives:** Lucia Anjos, President of the Brazilian Soil Science Society, a member of IUSS; Edoardo Costantini, President-elect of IUSS

#### Webpages dedicated to gender equality or women in science:

The IUSS is a new member of the SCGES and at this moment only has an IUSS Notice of Non-discrimination: https://www.iuss.org/about-the-iuss/iuss-notice-of-non-discrimination/

Existence of explicit policies for gender equality: Not at this moment.

Activities to promote gender equality or women in science inside the union: We are working on it and hope to have specific activities to report next year.

#### Research activity about gender equality or women in science:

Soil, Legislation and Social Equity. EGU-2021 SESSION. Conveners: Paola Adamo, Claudio Zaccone and Laura Bertha Reyes Sánchez.

Brevik, E; Dawson, L. and Reyes-Sánchez, L. 2021. International Gender Equity in Soil Science: A Social Equity Issue. EGU21-17. EGU 2021.

Dawson, L., Brevik, E; Reyes-Sánchez, L. 2021. International gender equity in soil science. European Journal of Soil Science. DOI: 10.1111/ejs.13118

Eric C. Brevik, Laura Bertha Reyes-Sánchez, and Lorna Dawson. 2021. A Look at International Gender Equity in Soil Science. Beneath our Feet. Blog of the Global Soil Biodiversity Initiative.

Reyes-Sánchez, L. B., Brevik, E. and Dawson, L. 2021. Gender Equity in Soil Science: An International Perspective. Work submitted to the ASA, CSSA, & SSSA annual meeting to be held on November 7-10, 2021 in Salt Lake City, Utah.

Specific initiatives related to gender equality or women in science in Covid times: Celebrating the International Day of Women and Girls in Science in 2021, the IUSS called by its social media the Soil Science community to work to close the gender gap.



Soil Science Societies of Argentina, Brazil, Costa Rica, Mexico, Perú and Spain, organized activities celebrating women and encouraging girls to work on Soil Science.

















#### **Association for Computing Machinery (ACM)**

https://www.acm.org

#### Representative and deputy representative

Representative: Jodi Tims; deputy representative: Reyyan Ayfer

#### Relationship between the SCGES representatives and the officers of the union

Jodi Tims, ACM-W Chair

Reyyan Ayfer, ACM-W Regional Committee Co-Chair

#### Webpages dedicated to gender equality or women in science

Web site for ACM-W and its various projects: https://women.acm.org

#### Existence of a structure for gender equality or women in science inside the union

ACM-W is a committee of ACM's Diversity & Inclusion Council, which reports to the general ACM Council.

ACM-W is comprised of an executive leadership board (10 members) and has several committees that drive its programmatic work – Professional Chapters Committee, Student Chapters Committee, Regional Committees (ACM-W Europe, ACM-W China, ACM-W North America, ACM-W India, ACM-W Asia Pacific), Scholarships Committee, and Rising Star Award Committee.

#### Existence of a budget for gender equality or women in science activities

ACM-W operates with a budget of \$230,000, the majority of which is granted by ACM and the remainder from corporate philanthropic funds.

#### Existence of explicit policies for gender equality

ACM has an approved code of ethics and professional conduct (<a href="https://www.acm.org/code-of-ethics">https://www.acm.org/code-of-ethics</a>) that includes statements on non-discrimination. These statements are not limited to women, but intended to establish expectation of equitable and respectful behavior as related to all computing professionals. There is also a process defined if an ACM/ACM-W member experiences a violation of these expected policies in conjunction with ACM/ACM-W activities.

#### Activities to promote gender equality or women in science inside the union

ACM-W is a mature women-in-computing organization that operates on a global level. Regional committees drive much of the work of the organization within geographic regions. This work includes establishing/supporting student and professional chapters and running Celebration conferences to highlight the work of women in computing. Our Scholarships Program grants travel grants to women who wish to attend technical conferences with strong connection to computing/computer science, awarding approximately \$35,000 USD annually to undergraduate and graduate students. Two years ago, ACM-W received an endowment to establish the Rising Star Award, which is given to a woman within the first ten years of her career who has made a significant accomplishment to the advancement of computing. Regional committees also run various projects within their committees, but these vary from region to region.

Most recently, ACM-W launched a webinar series, Celebrating Technology Leaders (further described below).

ACM-W also participates with several partner organizations via boards/councils (e.g., SCGES, NCWIT, CRA-WP, AnitaB.org) and is frequently contacted by governmental bodies, international

journals, other publications, and other service organizations to contribute expertise, content and sponsorship for their various efforts.

#### Research activity about gender equality or women in science

ACM-W does not directly drive research activity. However, ACM-W frequently partners with other organizations or individuals as co-investigators on research projects.

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

ACM-W continues to reference the Gender Gap in Science book in member communications and in multiple articles that have been published by Jodi Tims and Reyyan Ayfer (e.g., the requested article in the upcoming issue of PAC, an editorial in *Communications of the ACM*, ACM-W's newsletter).

We are currently in the process of designing a new section to our web site in which we will highlight all of our partnership activities. Within that site, both the Gender Gap project and SCGES will be represented with appropriate links to associated web sites.

#### Specific initiatives related to gender equality or women in science in Covid times

ACM-W was successful in continuing many of its major projects during the COVID pandemic to ensure women in computing could still experience the support of the organization. While many of our regional Celebration events were canceled in the very early days of the pandemic, the last academic year saw many events pivot to a virtual format and, in many cases, had record attendance.

ACM-W also launched a webinar series, Celebrating Technology Leaders (<a href="https://women.acm.org/celebrating-technology-leaders/">https://women.acm.org/celebrating-technology-leaders/</a>) in August of 2019. Each webinar features women in the computing industry and is conducted as a panel discussion hosted by the series creator/host, Bushra Anjum. Webinars are recorded and made available as a resource for those unable to participate during the live event, including our student chapters that can use them as material within their regular chapter meetings. We anticipate continuing this series beyond the pandemic as it has been well-received as a resource that illuminates the myriad sub-disciplines of computing and varieties of career paths for women in computing.

#### Other relevant information

Jodi Tims and Reyyan Ayfer are in their final years of service to the ACM-W leadership team. New representatives to SCGES will be identified before June 30<sup>th</sup>, 2022, and will be introduced to SCGES leadership for ongoing participation of ACM-W in this effort.

#### **GenderInSITE (GIS)**

#### https://genderinsite.net

#### Representative and deputy representative

Representative: Roseanne Diab; deputy representative: Alice Abreu

#### Relationship between the SCGES representatives and the officers of the union

Roseanne Diab is the Director of GenderInSITE and Alice Abreu is a member of the GIS Steering Committee.

#### Webpages dedicated to gender equality or women in science

The entire website is dedicated to women in science given the nature of GenderInSITE. It includes sections giving an overview of GIS, a description of thematic areas covered by GIS, a section on resources which provides access to all published reports, and a news section.

The two regional focal points of GIS also have separate websites.

Africa regional focal point: https://genderinsite-africa.org

Latin America and Caribbean regional focal point: <a href="http://www.catunescomujer.org/gisalc/">http://www.catunescomujer.org/gisalc/</a>
The latter is a Spanish language website that is widely utilised for gender-related resources.

#### Existence of a budget for gender equality or women in science activities

The entire budget of GenderInSITE is devoted to women in science activities.

#### Existence of explicit policies for gender equality

The vision, mission and 5-year strategic plan for GenderInSITE explicitly outline the role of GenderInSITE in gender equality.

#### Activities to promote gender equality or women in science inside the union

GenderInSITE works to influence its external partners, such as TWAS, IAP and ISC, as well as many others, to promote gender equality.

#### Research activity about gender equality or women in science

GIS advocates for the application of a gender lens to science, innovation, technology and engineering policies, particularly those related to development. Particular reports produced include:

- Gender and Innovation: Implications for Sustainable Development (November 2020)
- Gender Dimension of Digital Technologies (February 2021)

Fact sheets on gender in climate change, agriculture and food security, water and sanitation, energy, transportation, and education and the workforce have also been produced.

Recently completed a report together with IAP and ISC on Gender Equality in Science: Inclusion and Participation of Women in Global Science Organisations.

# Specific activities to disseminate the results of the Gender Gap in Science Project and implement its recommendations

Placed the report on our website and notified those on our data base of its publication.

#### Specific initiatives related to gender equality or women in science in Covid times

GIS-Africa regional focal point produced two reports:

• Applying a Gender Lens to the COVID-19 Pandemic with a Focus on Research Production

 Applying a Gender Lens to COVID-19: Gender Disaggregation of Number of Confirmed Cases and Number of Deaths in Africa

#### Other relevant information

Through the GIS Latin American and Caribbean regional focal point have engaged in capacity development as follows:

- Gender equality in STEAM education e.g. TeachHer reached > 100 teachers
- Digital literacy training program for indigenous farmers in N Argentina trained 300 female farmers
- Integration of gender into the tech industry trained 50 employees of a private tech company

Engaged in an online forum to bring the gender dimension to refugees in science through the TWAS ISC program Science in Exile.

Produced a video documentary featuring a case study of gendered innovations in Africa.



Standing Committee for Gender Equality in Science, 2021



















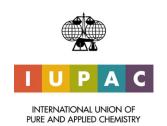












Report prepared by Catherine Jami and Marie-Françoise Roy