

# The Gender Gap in Science Project

<https://gender-gap-in-science.org/>

Silvina Ponce Dawson

Departamento de Física, FCEN-UBA and IFIBA (CONICET)

Executive Committee Meeting, May 3-4, 2018



## A brief reminder

# A Global Approach to the Gender Gap in Mathematics, Natural and Computational Sciences: How to Measure It, How to Reduce It?"

### Three tasks:

- A global survey including all natural sciences and math (AIP again in charge of it).
- Study of patterns of publication (detailed analysis of metadata)
- Compilation and elaboration of lists of good practices (considering regional differences)

Received a large grant from ICSU (now ISC) that finishes in 2019.  
IUPAP and other unions provide additional support.

**GENDER GAP IN SCIENCE**  
A Global Approach to the Gender Gap in Mathematical and Natural Sciences: How to Measure It, How to Reduce It?

SEARCH

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INTERNATIONAL COUNCIL FOR SCIENCE  
INTERNATIONAL MATHEMATICAL UNION (IMU)  
IUPAP  
IAU  
IUBS  
ICIAM  
IUPAC  
IUPST  
Gender InSITE

# Project Organization

## **Executive Committee of 21 members:**

4 from IMU, 4 from IUPAC, 4 from IUPAP, 1 from IAU, 1 from IUBS, 1 from ICIAM, 1 from IUHPST, 1 from ACM, 2 from UNESCO, 1 from GenderInSITE, 1 from OWSD

## **Coordination groups:**

Each one in charge of one of the three tasks (IUPAP is on the coordination group for the survey)

## **Advisory Board**

There is a communication team that keeps the webpage <https://gender-gap-in-science.org/> always up to date, publishing news about the project regularly.

Communications are channeled via the webpage (including a blog), a very active Twitter account



and a less active Facebook group



Gender Gap in  
Mathematical,  
Computing, and  
Natural Sciences  
@GenderGapSTEM



# Activities so far



Coordination workshops in Paris, in June 2017 and 2018

The meeting in June 2018 was attended by: Igle Gledhill (WG5 Past Chair), Gillian Butcher (WG5 Chair), Silvina Ponce Dawson (IUPAP VP and Gender Champion) and Michel Spiro (IUPAP President Elect), representing the IUPAP. Reports on the various activities were presented and the future lines of action were discussed.

Three regional workshops during 2017 to bring in a regional perspective to the three tasks

Asia regional workshop,  
Taiwan, November, 2017



Latin America regional workshop,  
Colombia, November, 2017



Africa regional workshop,  
South Africa, December, 2017

The three tasks of the project are related to previous activities of some of the partners.

The study of publication patterns is based on a previous study performed on mathematics publications

The dissemination of lists of good practices among its members is something that most scientific unions have been doing.

The survey has its immediate antecedent on the global survey of physicists carried out by the American Institute of Physics with the direct involvement of the IUPAP working group on women in physics for the elaboration of the questionnaire and dissemination.

As in the case of the survey of physicists, the new survey of scientists is carried out by the Statistical Research Center of the AIP. It is hosted in its secure servers. They will collect and analyze the data.

# The Global Survey of Scientists.

We had a first draft of the questionnaire for the regional workshops. We discussed extensively about it (and made suggestions).

A new version was available in February for the Executive committee to make suggestions/corrections.

Translations (into 6 languages) were available for revision in March (a lot of work there about “gendered language”).

Dissemination letter re-worked in the 7 languages.

It is available at <https://statisticalresearchcenter.aip.org/cgi-bin/global18.pl> in 7 languages (English, Spanish, French, Russian, Chinese, Arabic and Japanese). It opened up for responses on May 1st. Originally, we were planning to keep it open through October, 31st, 2018 and now we extended it through the end of November.

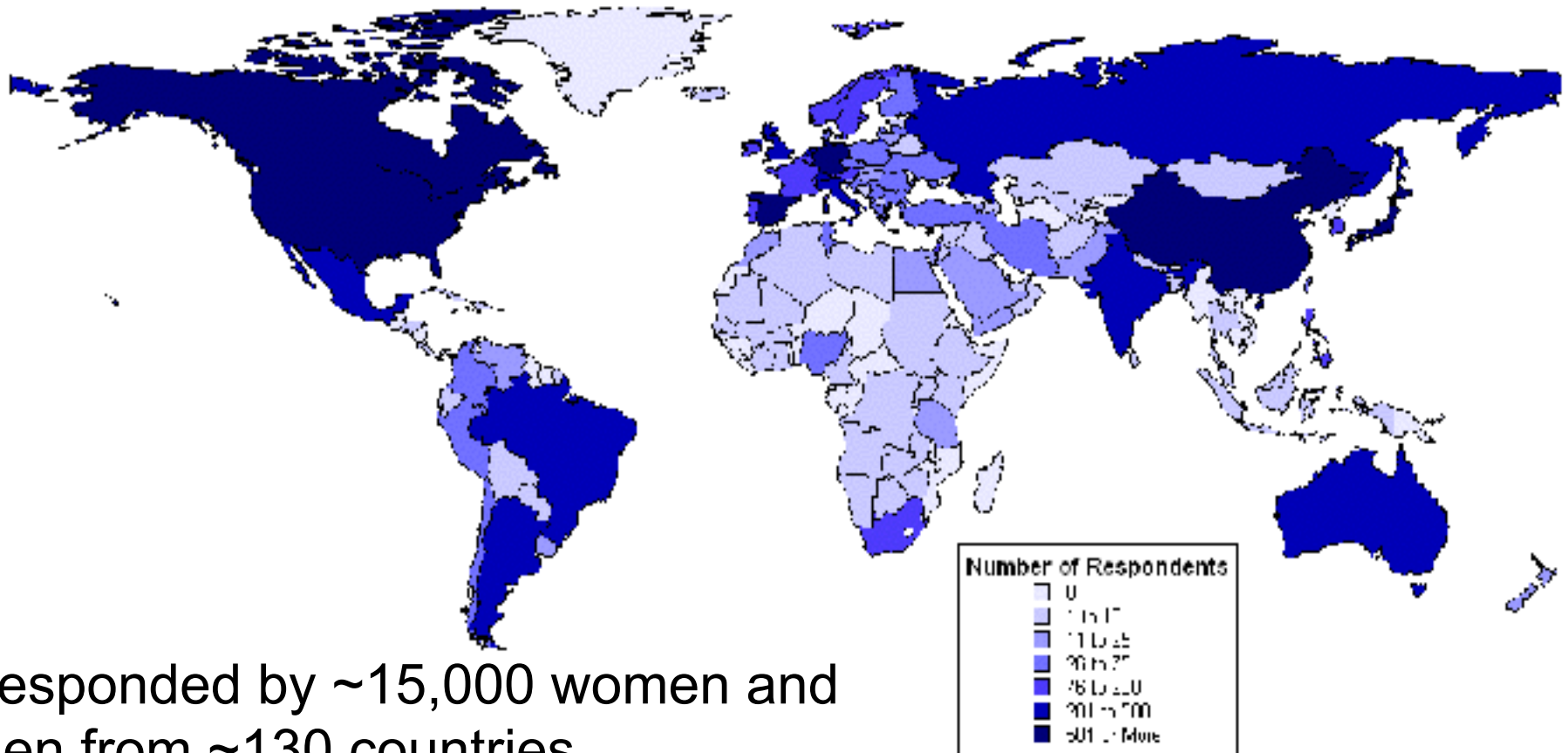


# The Global Survey of Physicists (2009-2010)

Delivered in 8 languages

Carried out by the American Institute of Physics (funded by the Henry Luce Foundation)

**Global Survey of Physicists; Most Recent Country of Respondent**

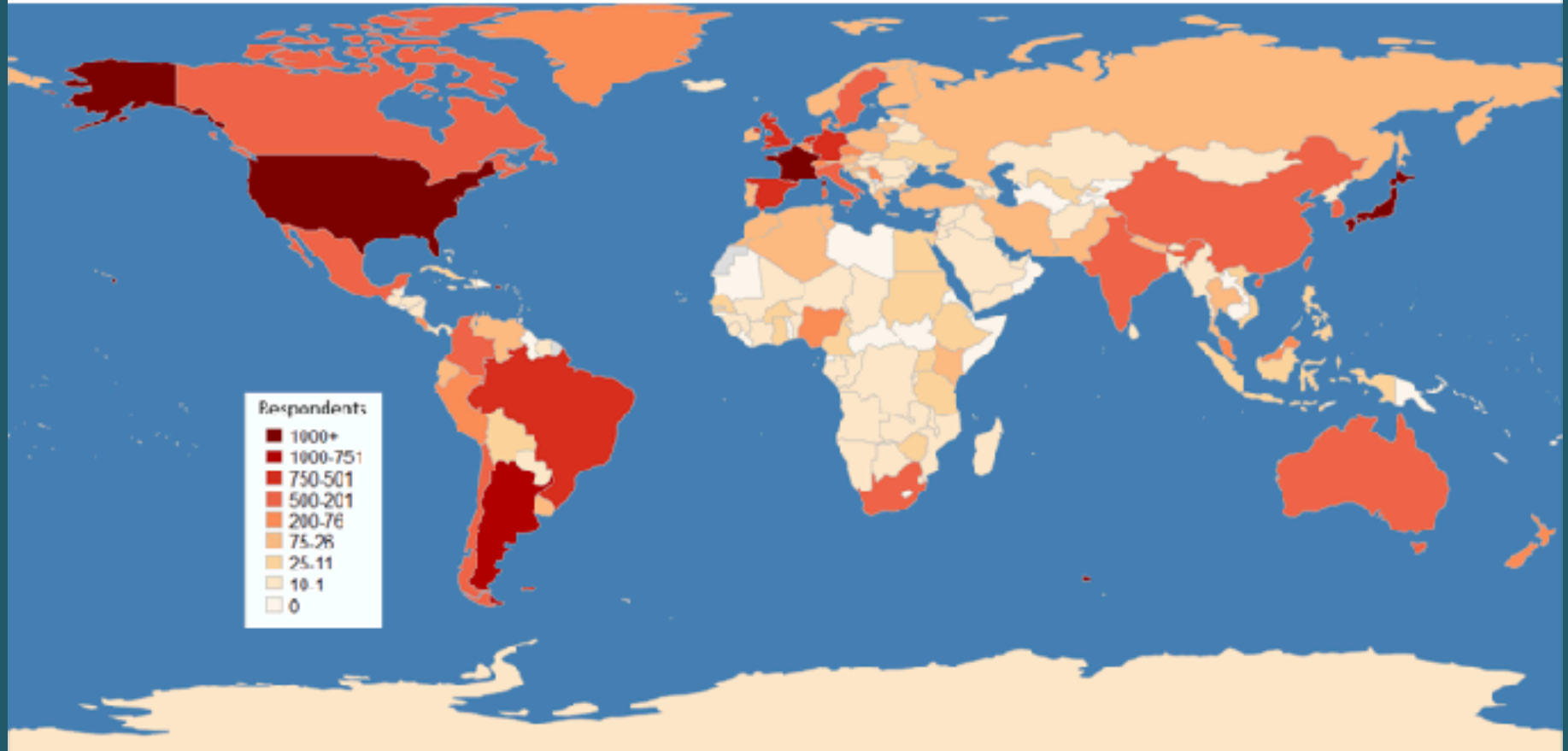


Responded by ~15,000 women and men from ~130 countries.

We expected a similar outcome this time, but ... The number of responses by physicists is a little low

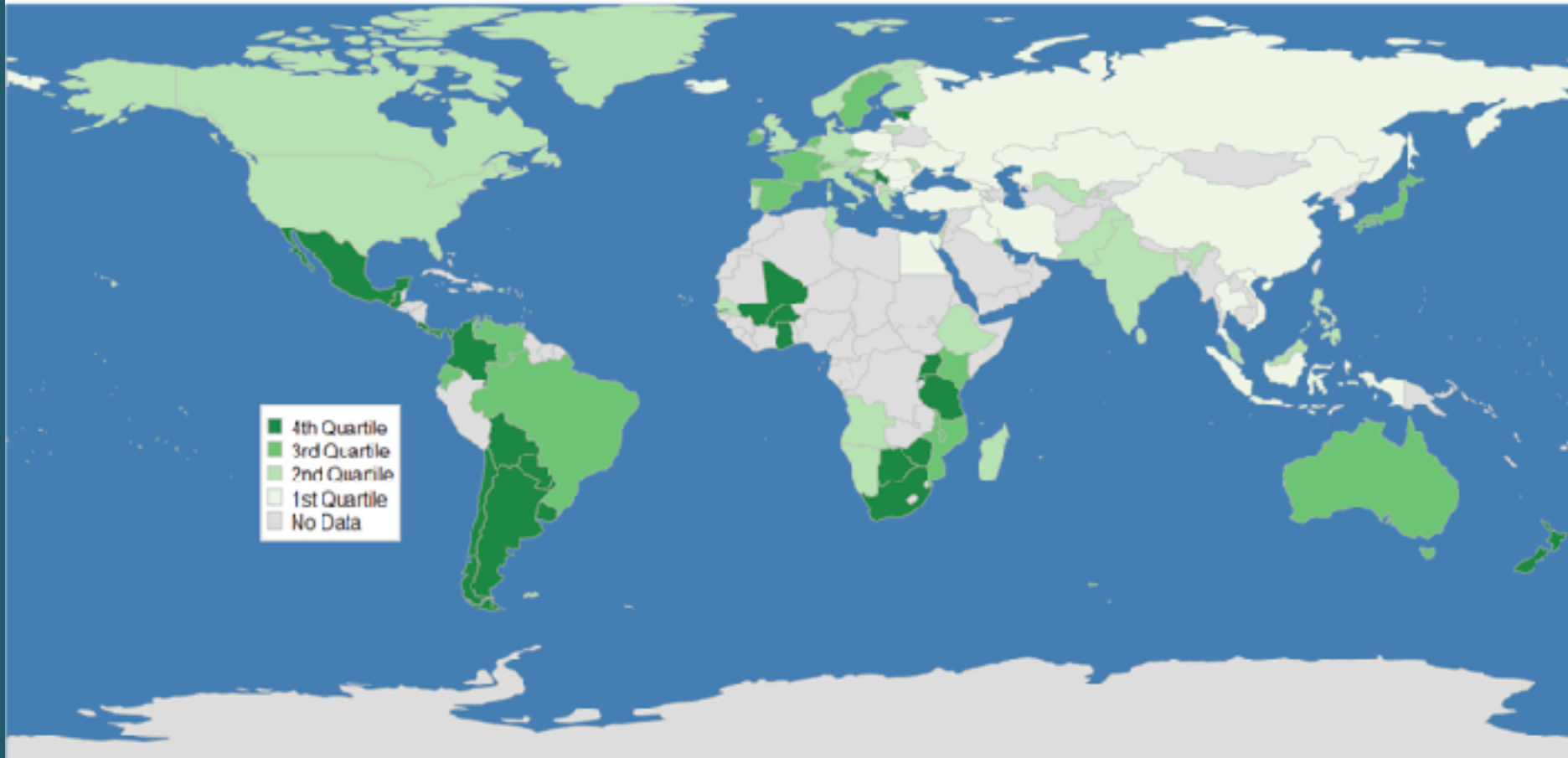
# Number of responses (all disciplines)

Number of Respondents to the Global Survey of Scientists Per Country, 1/10/2018



This can be a little misleading, because certain countries have many more scientists than responses! (e.g., USA, China)

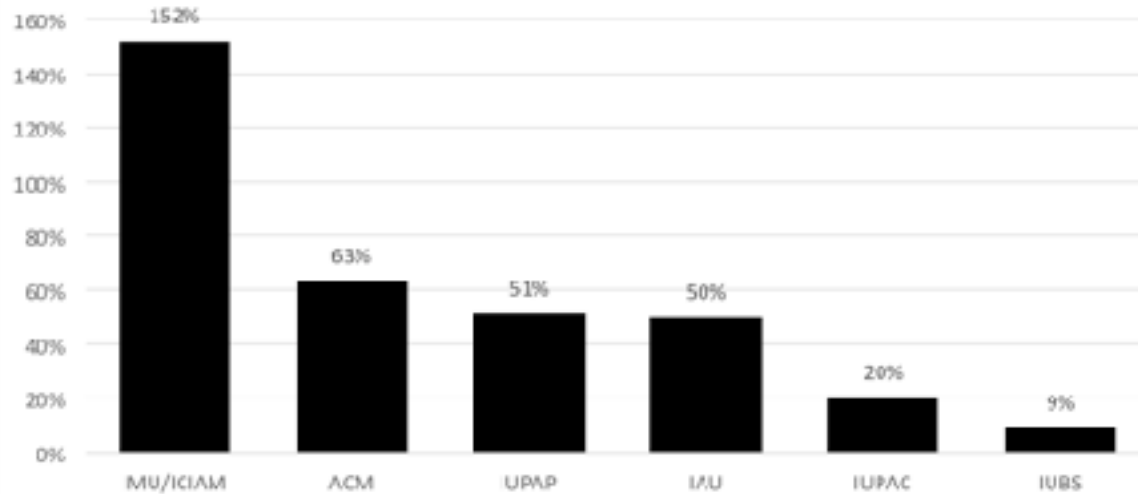
## Proportion of Responding Scientists - 1/10/2018



Fraction of responses with respect to (estimated) total population of scientists in each country.

# How are we, physicists, doing?

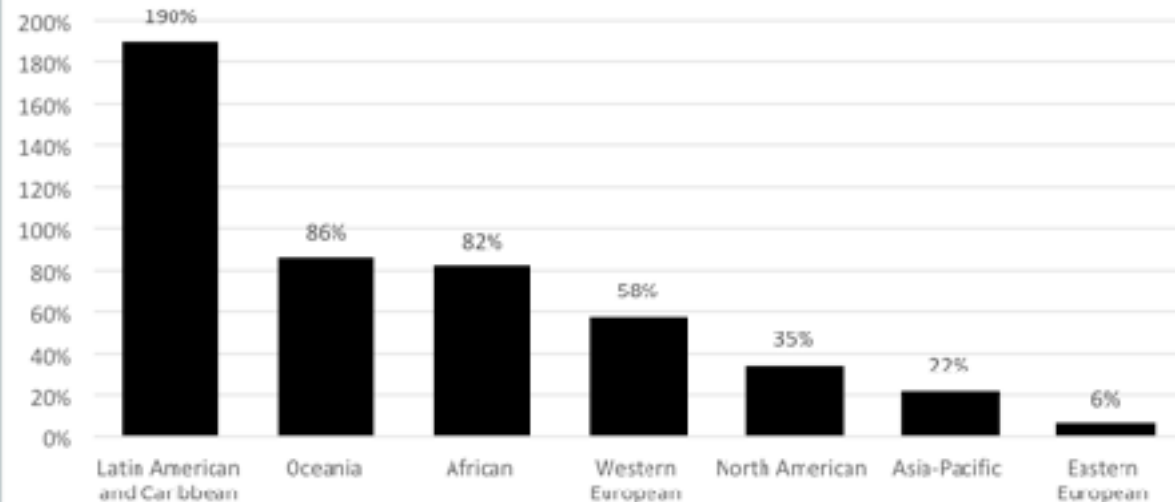
Progress Towards Union Targets, 1/10/2018



We need to send out a new reminder

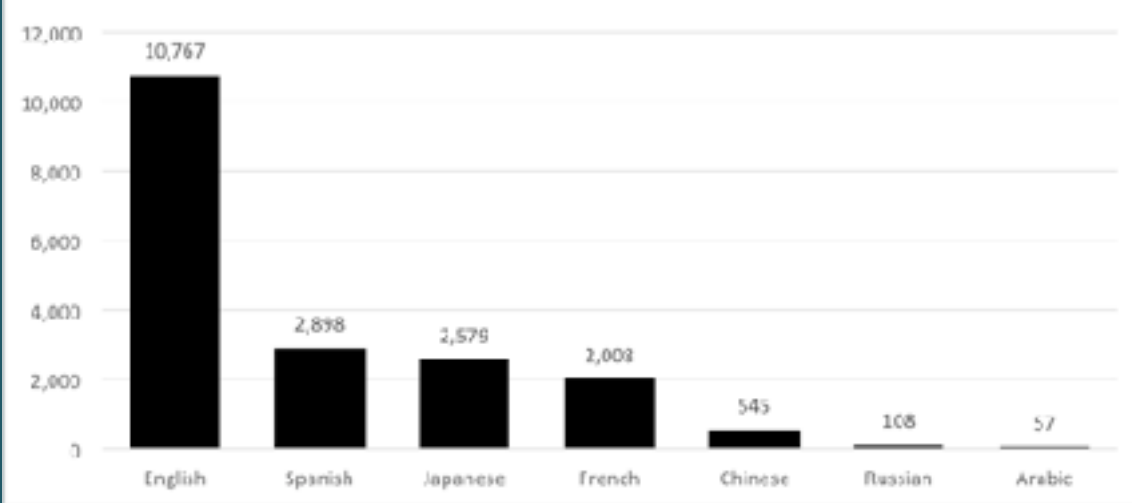
# What about regions (all disciplines)?

Progress Towards Region Targets, 1/10/2018

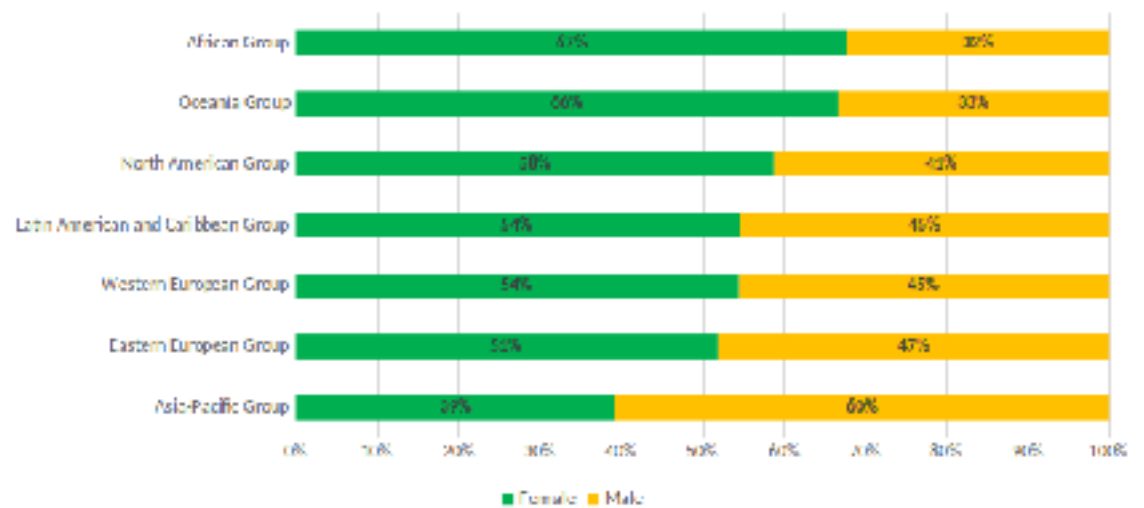


# Other analyses

Respondents by Language 1/10/2018



Percentage of Men and Women Respondents by Region, 1/10/2018



## Advances in the other tasks

Setup of a cloud infrastructure for data storage and computing has been finalized. Data collection, preparation and import has been implemented for the three data sources that will be used: zbMATH, ADS and arXiv. An automated process collects the data from their servers, processes the data and imports it into a dedicated database in the cloud.

Other algorithmic tasks: evaluation of various name-based gender inference services with respect to relevant metrics (results published in PeerJ Computer Science). Based on these results, a gender- inference algorithm has been implemented for the 3 relevant data sets.

Progress in extracting geo-information from affiliation strings has been made.

Creating the good practice database has presented some challenges, e.g., the longevity of initiatives that are projects with finite funding like Horizon 2020. Unless the projects have produced resources that can be used in future, they will not be included. Another challenge is the difficulty in finding evidence of the effectiveness and impact of initiatives.

# Other related activities

The Latin American Workshop of the project  
Universidad de los Andes, Bogota, Nov 22-24, 2017



Attended by 30 participants (by country: Argentina (4), Brazil (3), Chile (2), Colombia (12), Costa Rica (1), Cuba (1), El Salvador (1), Mexico (4), Peru (1), USA (1). By union: MU (3), IUPAP (4), IUPAC (2), ICIAM (1), IUBS (1), IAU (3), IUPHST (1), ICSU-ROLAC (2), GenderInSite (1), AIP (1), Social Science Experts (3) + 8 participants from Colombia).

led to various “spin-offs”

# Social networks and exchange of information

In preparation for the workshop a website was set up to collect the information that was needed before the activity and the information that was collected during the activity or will be collected as the project progresses. This website is located at: <http://wp.df.uba.ar/ggapsla/>

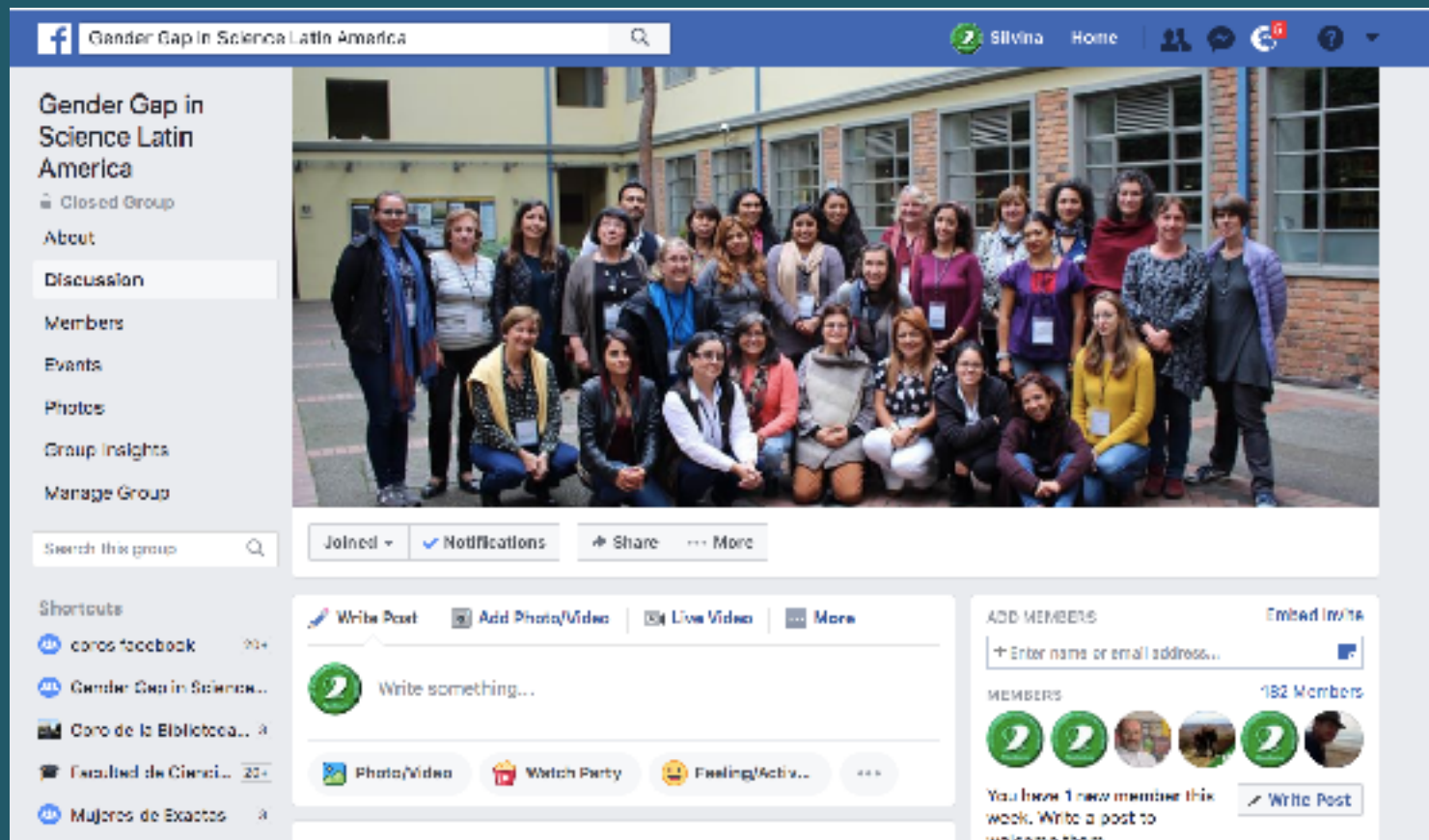


In this webpage we have information on the project and a list of initiatives to promote good practices



A Facebook group was started during the workshop [Gender Gap in Science Latin America](https://www.facebook.com/groups/1906996436283316/) (<https://www.facebook.com/groups/1906996436283316/>)

The group is pretty active and has about 150 members.



The screenshot shows the Facebook group page for "Gender Gap in Science Latin America". The page header includes the group name, a search bar, and navigation icons for home, group, messages, and notifications. The main content area features a large group photo of approximately 30 people, mostly women, posing in front of a brick building. Below the photo are buttons for "Joined", "Notifications", "Share", and "More". The left sidebar contains navigation options: "About", "Discussion", "Members", "Events", "Photos", "Group Insights", and "Manage Group". The right sidebar shows "ADD MEMBERS" with a search input, "MEMBERS" with 182 members, and a notification that "You have 1 new member this week. Write a post to welcome them." The bottom of the page has a "Write Post" section with options for "Add Photo/Video", "Live Video", and "More".

# The Book

During the Workshop we decided to publish a book with information on good practices in the regions that we had collected.

Contributions have been written by Workshop participants. We have collected all of them and are into the final steps of correction and editing.

The book is being published by the Mexican Physical Society with funds from the Project.



Editors:

Lilia Meza Montes (BUAP, Mexico)

Silvina Ponce Dawson (UBA, Argentina)

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Will be printed soon. It will also be available for downloading from a website.

We are planning to send it to institutions of research and higher education in Latin America and the Caribbean. We expect it will serve as inspiration to design and apply policies to reduce the gender gap in science in the region.

We also expect it will be of interest for the scientists of the region to learn about existing initiatives.

# Future activities of the Latin American chapter

We will have a closing Latin American activity at ICTP-SAIFR in Sao Paulo, Brazil in October, 2019.

## 2019 Activities

### Meetings/Programs/Workshops

2019 Meeting of Scientific Council and Steering Committee  
February 4-9, 2019

ICTP-SAIFR/FAIR Workshop on Mass Generation in QCD  
February 25 – March 1, 2019

2019 Workshop on Perspectives in Nonlinear Dynamics  
July 15-19, 2019

Workshop on American Women  
August 19-24, 2019

ICTP-SAIFR Program on Particle Physics  
September 30 – November 30, 2019

Workshop on Determination of Fundamental QCD Parameters  
September 30 – October 4, 2019

Workshop on Skills for Young Scientists/Increasing Diversity in Physics  
October 7-11, 2019

Workshop on conformal field theories, tensor categories and Nichols algebras  
October 16-18, 2019

Dark Universe Workshop – Early Universe Cosmology, Baryogenesis and Dark Matter  
October 21-25, 2019

As in Bogota, it will combine a Workshop for Young Scientists and the closing activity where we expect to have some survey results.

It will cover inclusion in a more general sense (beyond gender).

## Future activities of the Project

We will have an executive committee meeting in Berlin in February 2019.

We will have a closing activity at the ICTP in Trieste in November, 2019 (hopefully some of you will be able to be part of it!).

Thank you!