



Diversity & Inclusion in the CMS Collaboration



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On behalf of the CMS Collaboration
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The Importance of Diversity for CMS



- The CMS Collaboration has over 4000 active members
 - Includes > 2000 PhD physicists, >1000 students, >1000 engineers, > 250 technicians
 - Members are from 269 institutes in 54 countries & regions
- The CMS detector is one of the largest scientific instruments ever built
 - ... and one of the largest scientific organizations ever assembled
 - Ensuring diverse and inclusive environment is essential for our continued success



CMS Diversity Office: History & Goals



- CMS Diversity Office (DO) has existed since 2018
- The goal of a CMS Diversity Office is to foster a working environment where all members of the Collaboration can thrive and bring in their talents, irrespective of age, career status, employment situation, institutional affiliation, geographical location, nationality, gender, ethnicity, family situation, sexual orientation, or disabilities.
- Comprised of 12 members (Two of whom are co-chairs)
- Co-chairs serve as ex-officio members of the collaboration board
- Diversity Office members are included in other collaboration bodies (e.g., thesis award committee, spokesperson election reflection group)
- <https://twiki.cern.ch/twiki/bin/view/CMSPublic/CMSDiversityOffice>

CMS Diversity Office: Mandate



The mandate of the CMS Diversity Office is to:

- Advise management and individuals on diversity related matters
- Propose actions to promote diversity and create awareness
- Monitor and record statistical information related to diversity
- Actively listen to Collaboration members' concerns
- Report regularly to the Collaboration about status and progress of diversity related issues
- Collaborate with relevant bodies outside CMS such as the CERN Diversity & Inclusion Round Table, Diversity Charter of JENA (the Joint ECFA, NuPECC, and APPEC Groups), and others

CMS Diversity Office: Activities



- Meetings & Fora
- Code of Conduct
- Outreach
- Anti-harassment Policy
- Search Committees & Appointments
- Management Training
- Data Collection
- CERN Diversity Roundtable
- Welcoming New CMS Members
- CMS Task Force on Diversity & Inclusion

CMS Diversity Office Meetings



- Typically have open meetings during CMS week, and closed meetings in between
- Meetings are lively and engage a wide cross section of the CMS community
 - At times typical CMS meeting format, other times have had discussions, Q&A with management, hosted seminars, etc
- Examples:
 - **Q&A**: Spokesperson, Collaboration Board chair, Publication Committee
 - **Discussions**: Management Selection Procedure, Remote Participation, Imposter Syndrome, Anti-harassment Policy discussion
 - **CMS Invited Talk**: "I'm the least sexist person..." Why It is misleading and dangerous to believe that you are free of prejudice - Prof. Juliane Degner

CMS Collaboration seems eager to discuss these issues – having open opportunities for engagement and discussion has been very important.

CMS Recommendations for Hybrid Meetings

1. Continue to use Zoom and Indico.
2. Record all talks and post to the agenda afterwards: in case you don't want to be recorded, please inform the conveners in advance; require talks/slides to be uploaded in advance (ideally a day in advance, otherwise as soon as possible).
3. Enforce time limits on speakers.
4. Participants write full name in Zoom/Video conference.
5. Provide a platform for conversation e.g. MatterMost or Slack.
6. Have an in-person moderator and a remote moderator who alternate in calling on people for questions/comments.
7. Suggest people in the physical room to state their names before asking questions or making comments.
8. Use the "raise hand" feature in Zoom as much as possible to manage the flow of questions/comments.
9. Post notes, minutes, Zoom discussions, and other written material from the meeting to Indico.
10. Provide post-talk discussion platform for people remotely, e.g. MatterMost or Slack. Ask speakers to respond in writing to written questions that were not addressed in the meeting.

These guidelines have helped everyone (both in person & on Zoom)



CMS Women's Forum and Other Affinity Groups

- CMS Women's Forum has been a very positive space for women and allies to gather informally, share experiences, exchange ideas, etc
 - CMS Talk Forum + hybrid meet-ups during CMS Weeks
 - Having an informal forum has been a great counterpoint and complement to the more formal Diversity Office
- Recently created CMS Families Forum in CMS Talk
 - "Families" broadly defined
 - In part, to disentangle some of the discussions of childcare from the Women's Forum, in acknowledgment of the fact that people of all genders may be interested in information regarding childcare
- Possibly branch out to other affinity groups as well

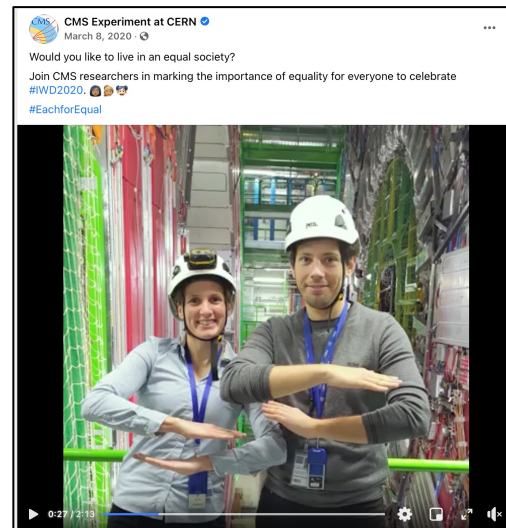
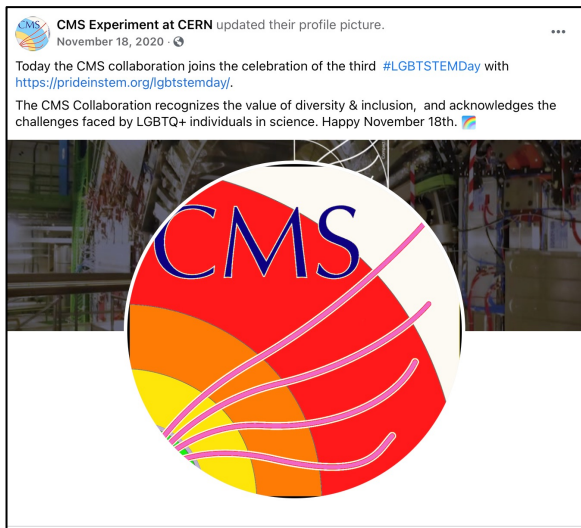
Having informal spaces to meet, in addition to a more formal forum, has been very beneficial.

CMS Outreach



- International Women's Day (8 Mar)
- LGBTQ+ STEM Day (18 Nov)
- International Day of Women and Girls in Science (11 Feb)
- CMS Holiday Card

CMS Diversity Office coordinates closely with the CMS Communications Team.



CMS Code of Conduct



CMS Code of Conduct

Approved by the CMS Collaboration Board 12-April 2019

The CMS collaboration consists of members with varied national origin, ethnic background, race, gender identity, sexual orientation, gender, age, physical ability, and religion. As a community, we are committed to being positive and inclusive in all regards.

We follow the [CERN Code of Conduct](#). Members of CMS must maintain a professional environment in an atmosphere of tolerance and mutual respect and abstain from all forms of harassment, abuse, intimidation, bullying, and mistreatment of any kind. This includes, but is not limited to, intimidation, sexual or crude jokes or comments, offensive images, and unwelcome physical conduct. Members must keep in mind that behavior and language deemed acceptable to one person may not be to another.

We commit to helping our community adhere to this code of conduct and speak up when we see possible violations of it. We strive to treat those outside of CMS as we would members of our own community. In the event that the letter or the spirit of this code has been violated, appropriate action will be taken, up to and including procedures specified in Annex A3.2 of the CMS Constitution.

<https://cms-docdb.cern.ch/cgi-bin/PublicDocDB/ShowDocument?docid=13847>

Posters in CMS meeting rooms

The poster is titled 'CMS KNOW THE CODE OF CONDUCT' and includes a QR code and the URL 'HTTP://CERN.CH/GO/D9BT'. It lists five responsibilities: 1. Maintain a professional environment in an atmosphere of tolerance and mutual respect (icon: handshake). 2. Abstain from all forms of harassment, abuse, intimidation, bullying and mistreatment of any kind (icon: prohibition sign). 3. This includes intimidation, sexual or crude jokes or comments, offensive images, and unwelcome physical conduct (icon: speech bubbles). 4. Keep in mind that behaviour and language deemed acceptable to one person may not be to another (icon: pushpin). 5. Help our community adhere to the code of conduct and speak up when you see possible violations (icon: group of people).

CMS **KNOW THE CODE OF CONDUCT**

[HTTP://CERN.CH/GO/D9BT](http://CERN.CH/GO/D9BT)

IT'S EVERYONE'S RESPONSIBILITY TO:

- Maintain a professional environment in an atmosphere of tolerance and mutual respect.
- Abstain from all forms of harassment, abuse, intimidation, bullying and mistreatment of any kind.
- This includes intimidation, sexual or crude jokes or comments, offensive images, and unwelcome physical conduct.
- Keep in mind that behaviour and language deemed acceptable to one person may not be to another.
- Help our community adhere to the code of conduct and speak up when you see possible violations.

Dealing with the CMS Code of Conduct has been a big part of my as DO co-chair.

CMS Diversity Office Anonymous Message Box



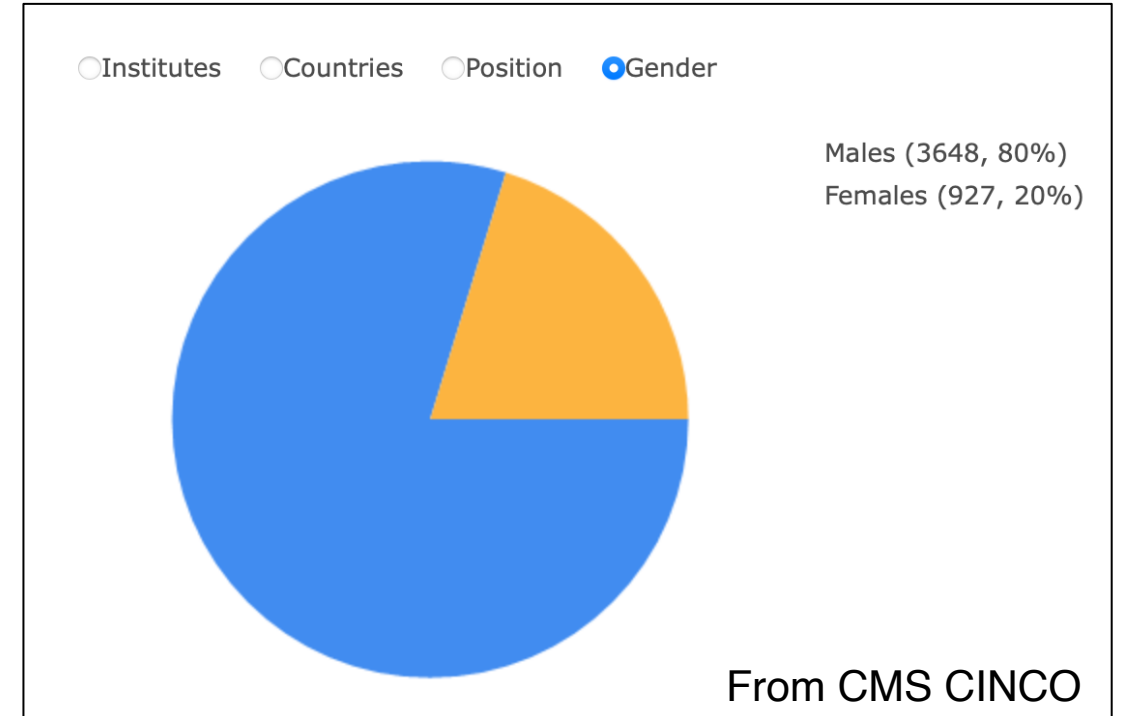
- **Anonymous form to communicate confidentially with Diversity Office Co-Chairs**
 - For example, to report any instances of inappropriate behavior - e.g. harassment, bullying, or deviation from CMS or CERN code of conduct.
 - The incidents could also relate to meetings or interactions beyond CMS at workshops or conferences when presenting on behalf of CMS.
 - This message box can also be used to make suggestions for any future action items for the Diversity office.
 - Of course, all information is treated in confidence.
- **We also use the messages to gauge the environment of the collaboration and to identify any persistent common issues.**

Having an anonymous avenue for colleagues to report instances of harassment, as well as other issues, has been valuable.

Data & Data Collection



- CMS collects data on variety of variables for all its members
 - Gender (binary: male or female)
 - Career level
 - Age diversity
 - Working country
 - Citizenship
 - Etc
- Our conference management database (CINCO) also collects statistics on some of these variables

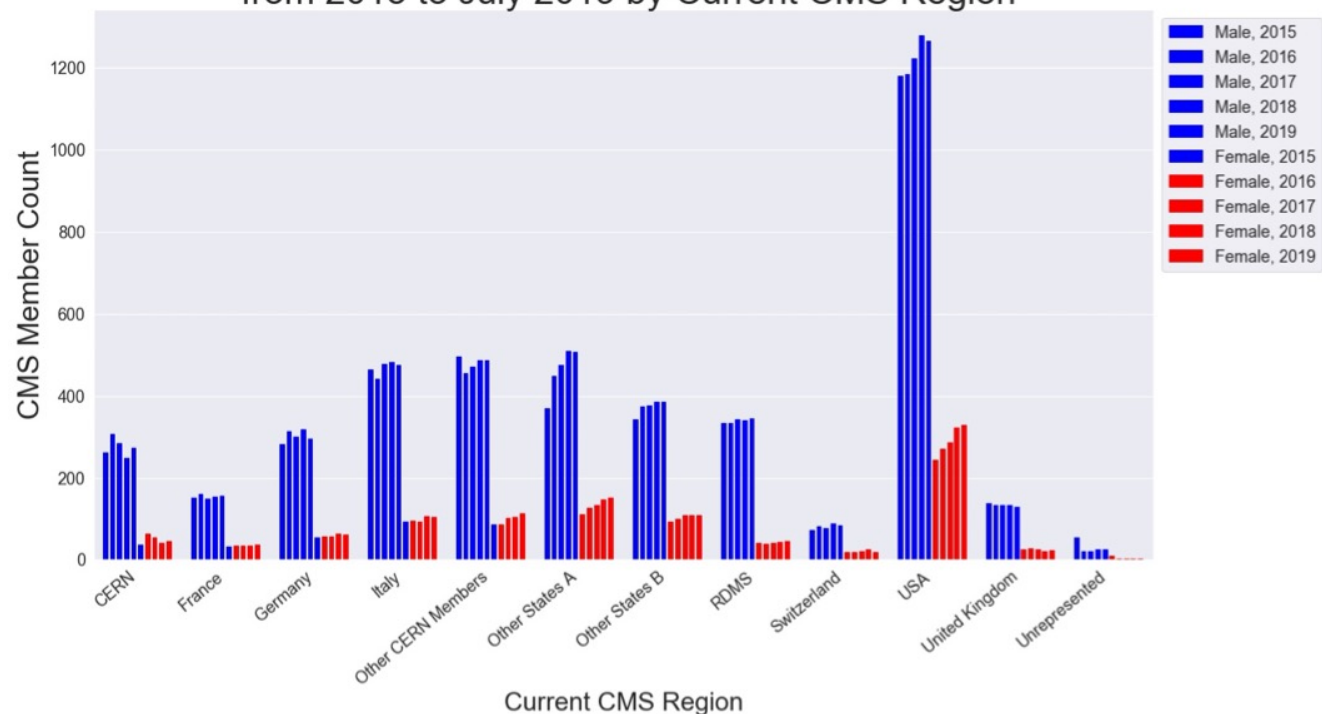


There are clear ways we need to improve data collection. For example, it is imperative that we include more options for gender identification!

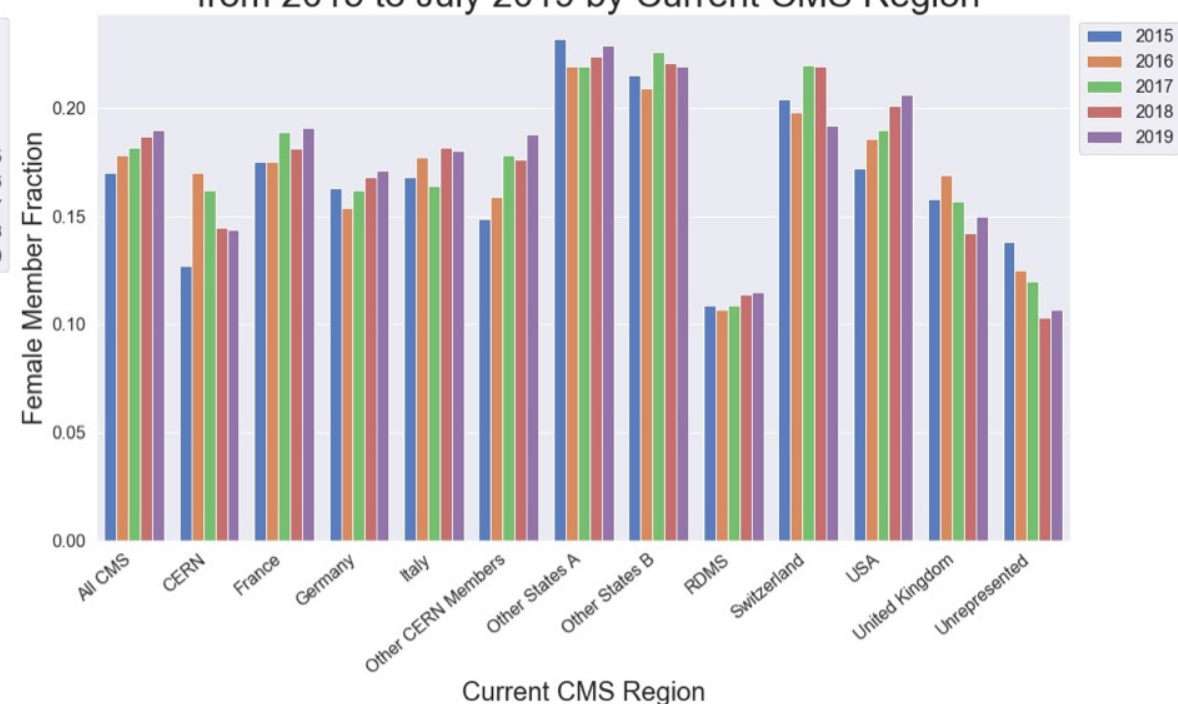
CMS D&I-Related Data



Yearly CMS Member Counts by Gender
from 2015 to July 2019 by Current CMS Region



Yearly Female Member Fraction
from 2015 to July 2019 by Current CMS Region



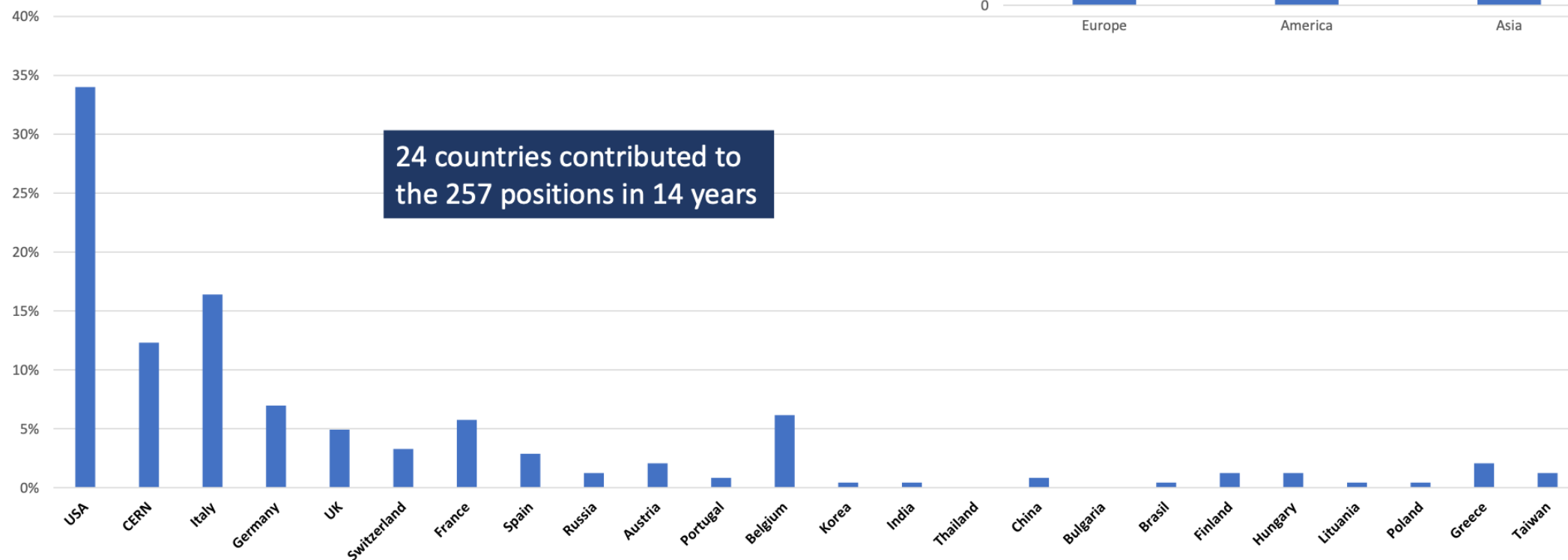
- Other CERN members: Austria, Belgium, Bulgaria, Finland, Greece, Hungary, Poland, Portugal, Serbia, Spain
- Other States A: China, India, Iran, Korea, Malaysia, New Zealand, Pakistan, Sri Lanka
- Other States B: Bahrain, Brazil, Colombia, Croatia, Cyprus, Ecuador, Egypt, Estonia, Ireland, Kuwait, Lebanon, Lithuania, Mexico, Montenegro, Oman, Qatar, Saudi Arabia, Turkey, Ukraine

CMS D&I-Related Data

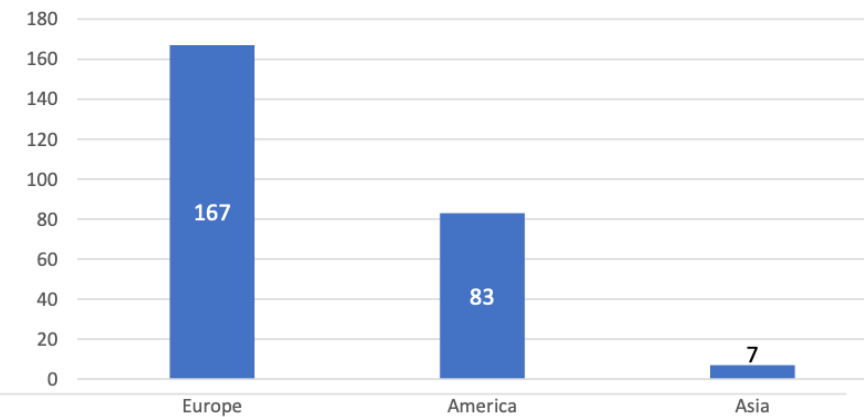


Physics Analysis Group (PAG) & Physics Object Group (POG) Leadership Positions (2007-2020)

POG/PAG position



PAG/POG per Region

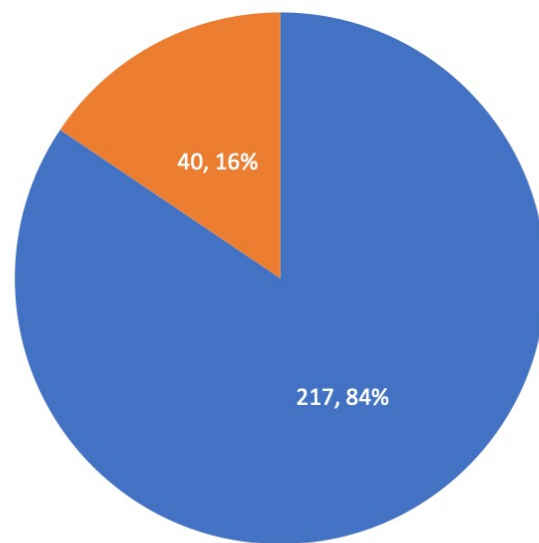


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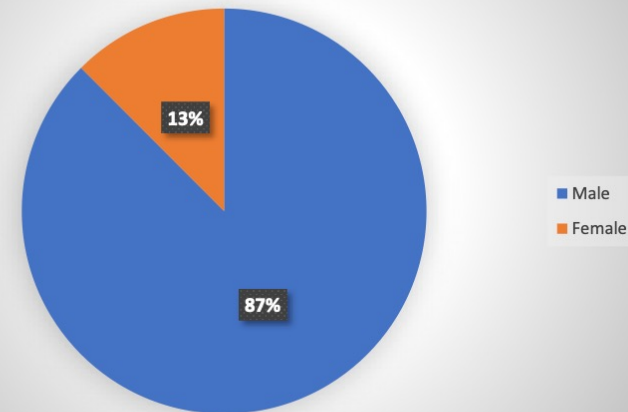


Physics Analysis Group (PAG) & Physics Object Group (POG) Leadership Positions (2007-2020)

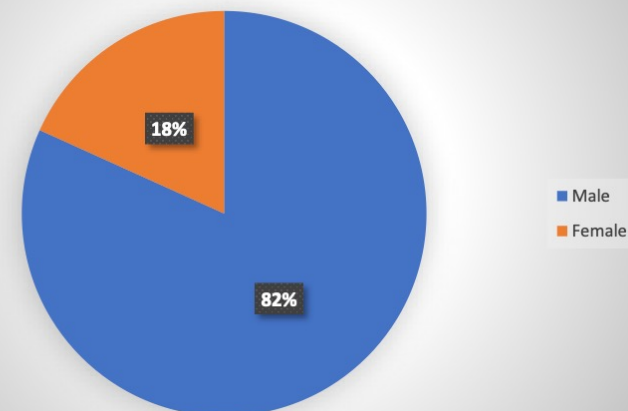
PAG/POG Gender 2007-2020



POG Gender 2007-2020



PAG Gender 2007-2020

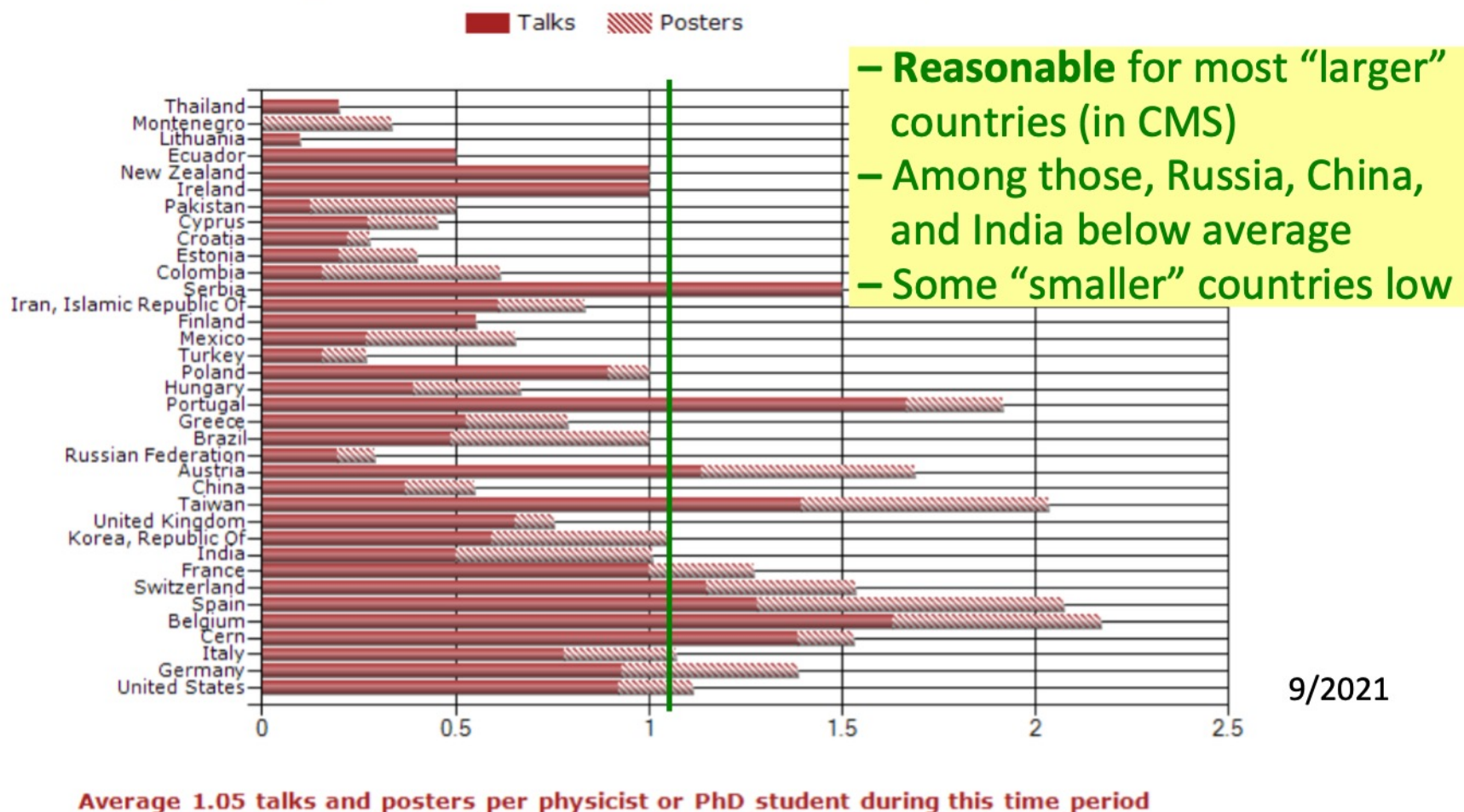


CMS D&I-Related Data: Conference Presentations



Geographical Diversity of Conference Presentations at Major Conferences

- ▶ Monitored regularly, and by-event for major conferences
- ▶ Example: major conferences, entire DB (~13 years, 2270 talks)



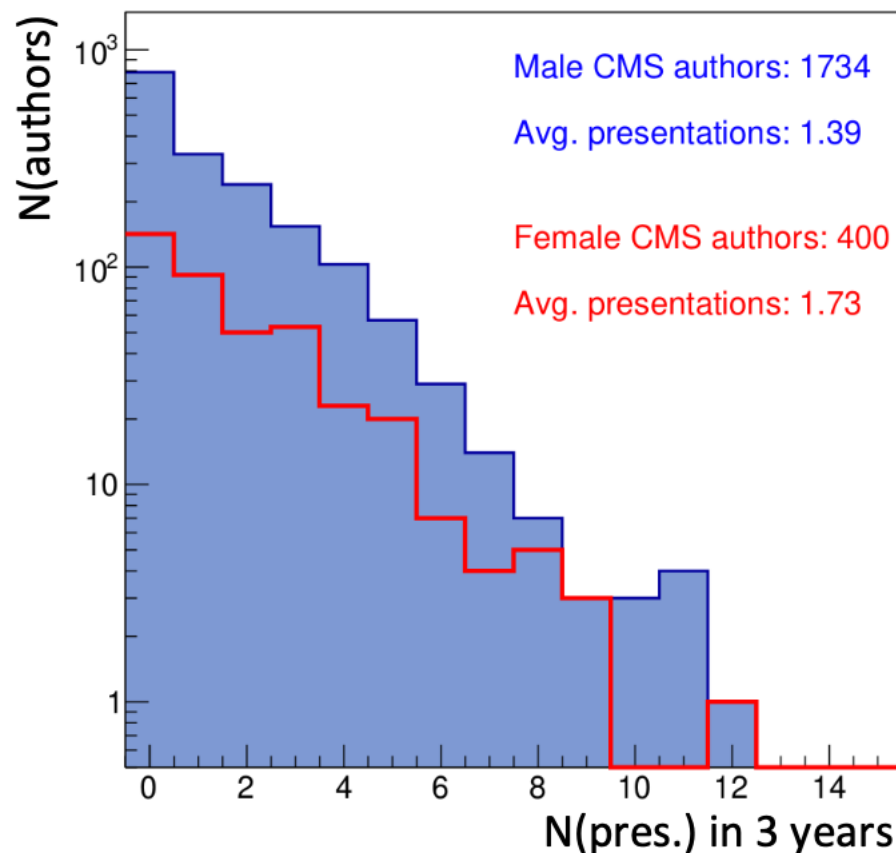
9/2021

Presented by A. Meyer
at NuFact 2021

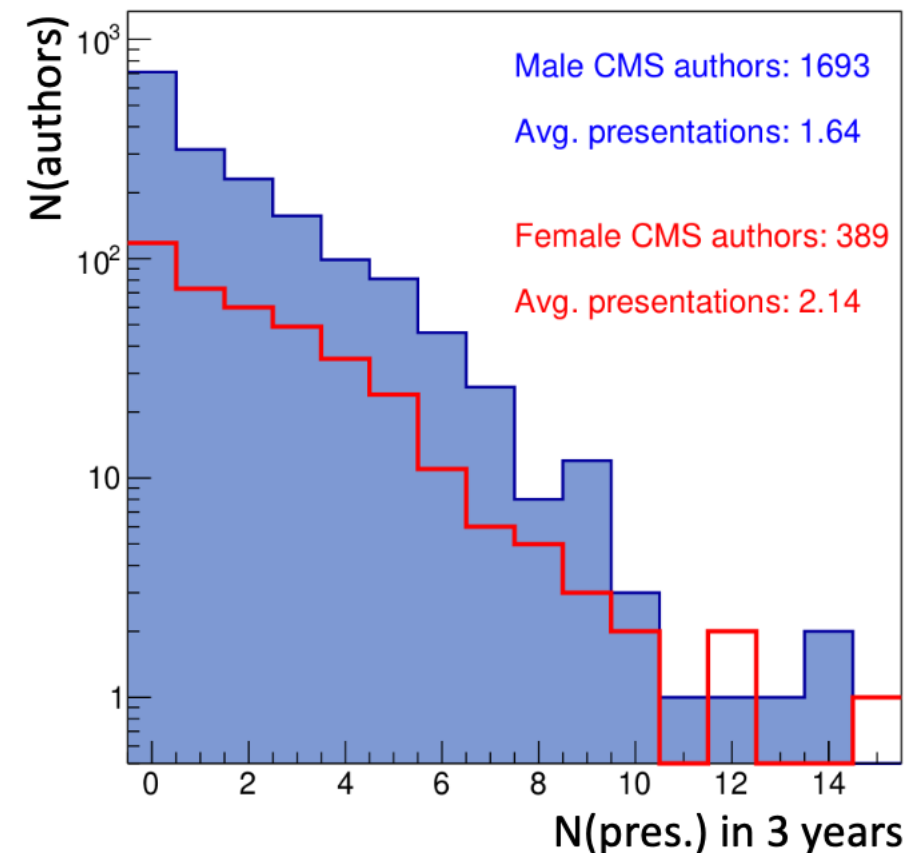
CMS D&I-Related Data: Conference Presentations



Gender Bias: Conference Presentations in 3 Year Period



2020 (~2018-2020)



2019 (~2017-2019)

CMS Management Training



- CMS has had a Management Training Task Force since June 2020 and has been offering various Management Training opportunities since Aug 2020
 - General training workshop for L2/L3 Managers
 - Writing reference letters
 - "Conversations Matter! How to engage others": Communication Skills & Conflict Resolution
 - "Virtual team reality! Leading teams successfully online":
 - "Work smarter, not harder!": Project & Time Management
 - Active Bystander Training
 - Upcoming: Developing the skill, knowledge, and mindsets to optimize the performance of their project teams

We can all improve our management skills, regardless of how long we have been in management positions.

CMS Task Force on Diversity & Inclusion (TFDI)



- An open letter was sent to the Collaboration Board (CB) in June 2020, signed by more than 300 CMS colleagues and requesting an effort to improve diversity and inclusion in the selection process to assign management positions
- As a consequence, the Task Force on Diversity and Inclusion (TFDI) was formed with the charge of developing a proposal to institutionalize within CMS, appropriately adapted, mechanisms known to increase diversity and inclusion in appointments
- The output of the TFDI was a report including eight high-level recommendations, each of which is complemented by more detailed recommendations
- The Implementation Team on Diversity & Inclusion (ITDI) is now implementing those recommendations, in conjunction with the CMS Diversity Office

Task Force was invaluable to expedite progress in Diversity & Inclusion.

Impact of COVID on Diversity & Inclusion

- The impact of COVID on the colleagues who are already marginalized or heavily burdened (eg, people with children, people with elderly parents, people with chronic illnesses, people who are low-income, people who don't have job security, etc) have been and will continue to be significant
- The negative impact on productivity, especially on academic women who typically have disproportionate amounts of household work and childcare, is real and documented
- COVID is not going away quickly and neither is the collective trauma from the pandemic

What can we do to continue supporting one another throughout the on-going pandemic?

Conclusions



- Improving diversity and inclusion is the responsibility of all collaboration members
- The CMS Diversity Office has a long-term charge to improve D&I
 - Success requires the input and work of all CMS members
 - Some improvements may not be possible without structural change
- Recent Task Force on Diversity & Inclusion and now the Implementation Team for Diversity & Inclusion have helped accelerate change
- We have a lot of work to do!
- Though some things that I believe have been successful in CMS:
 - Engaging meetings provide room for interesting and respectful discussions
 - Both formal and informal spaces for colleagues to commune and exchange ideas
 - Anonymous message box allows colleagues to send messages in confidence
 - Communicating available resources in as many avenues as possible
 - Task Force on D&I did a monumental task in accelerating progress in many fronts

Thank You!



CMS: Diversity and Inclusion



- Diversity refers to categories in which groups of people can be differentiated
 - These categories can include: gender, national origin, race, ethnicity, sexual orientation, ability, institutional affiliation
 - Diversity is often limited for historic and systemic reasons
 - Implicit or unconscious bias can often propagate this lack of diversity
- Inclusion or inclusivity refers to an environment in which all members of the community feel welcome and are able to contribute optimally
 - Diversity alone does not guarantee inclusion
 - A lack of inclusion can hinder efforts to retain and improve diversity
- Improving diversity and inclusion at CMS involve active efforts on behalf of all members of the collaboration