



LHC and Diversity

LHCP2021 conference

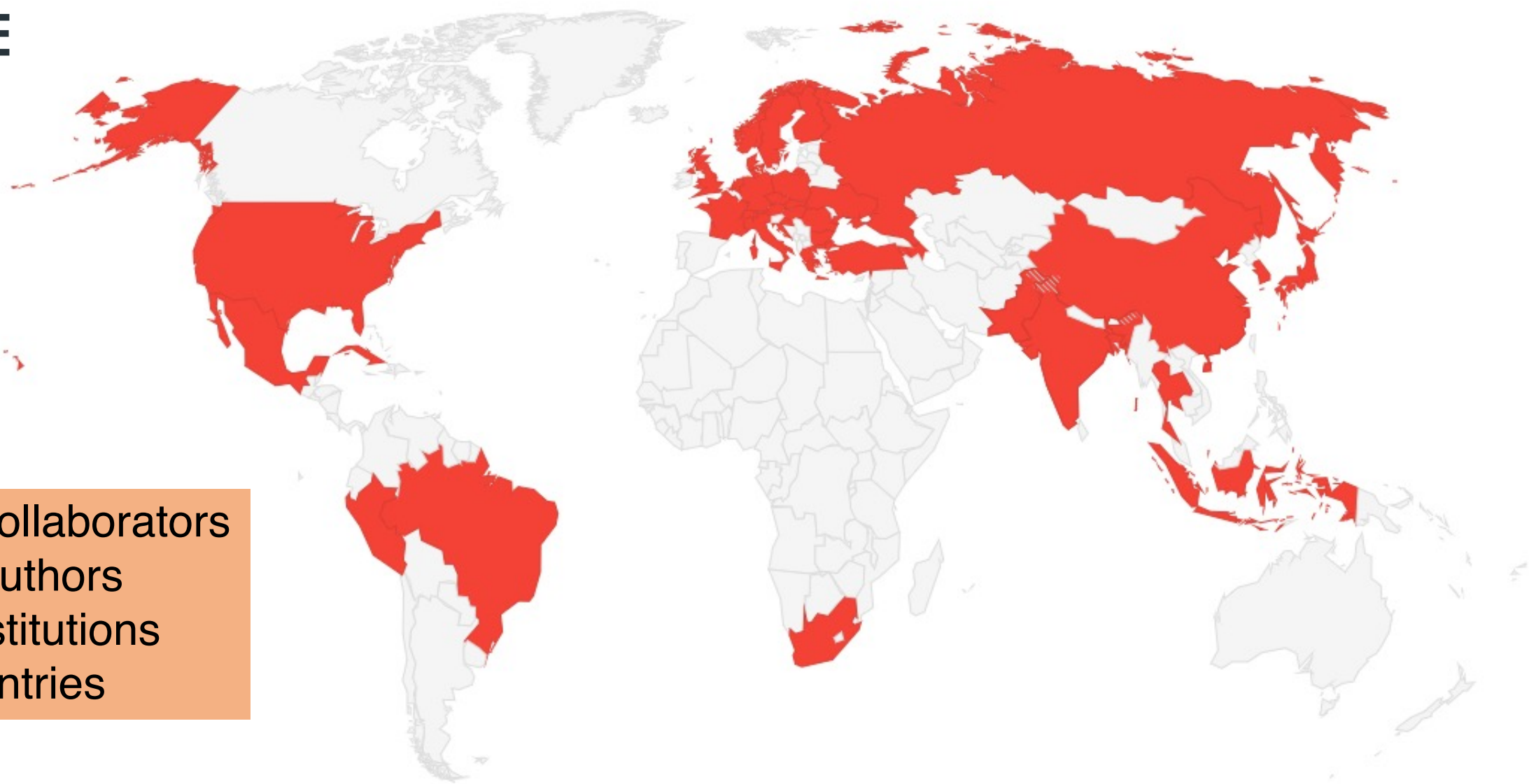
Adriana Telesca

on behalf of ALICE, ATLAS, CMS and LHCb

9 June 2021



ALICE



1968 collaborators
1025 authors
172 institutions
39 countries



- Argentina
- Armenia
- Australia
- Austria
- Azerbaijan
- Belarus
- Brazil
- Canada
- Chile
- China
- Colombia
- Czech Republic
- Denmark
- France
- Georgia
- Germany
- Greece
- Israel
- Italy
- Japan
- Mongolia
- Morocco
- Netherlands
- Norway
- Philippines
- Poland
- Portugal
- Romania
- Russia
- Serbia
- Slovakia
- Slovenia
- South Africa
- Spain
- Sweden
- Switzerland
- Taiwan
- Turkey
- UK
- USA
- CERN
- JINR

5900 collaborators
 2855 authors
 180 institutions
 40 countries

ATLAS Collaboration

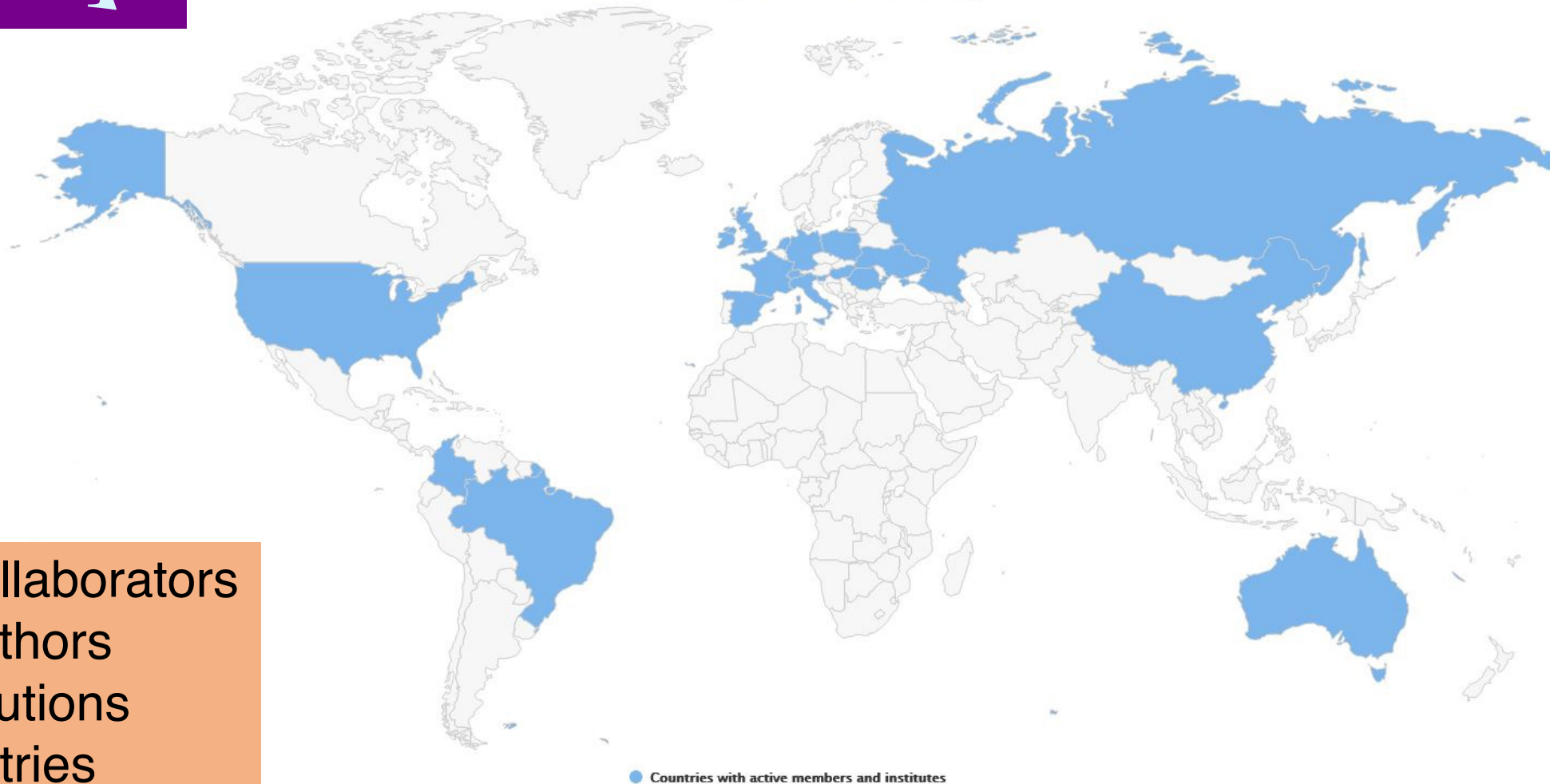
180 institutions (236 institutes) from 40 countries



5416 collaborators
2112 authors
242 institutions
54 countries



LHCb Collaboration map

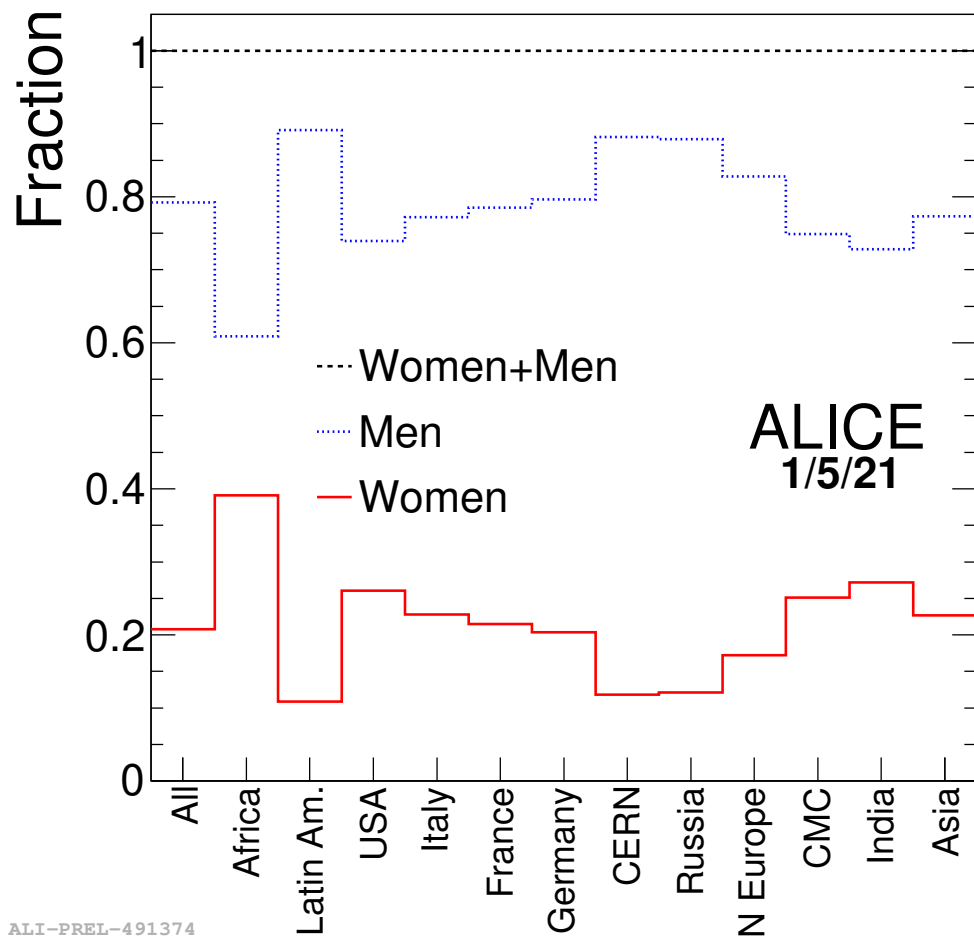


1482 collaborators
1011 authors
88 institutions
19 countries

Only institutes with active participation as official, associated, or technical institutes are taken into account. Only members with active primary participation are considered as well.
Made with Natural Earth. Free vector and raster map data @ [naturalearthdata.com](https://www.naturalearthdata.com).

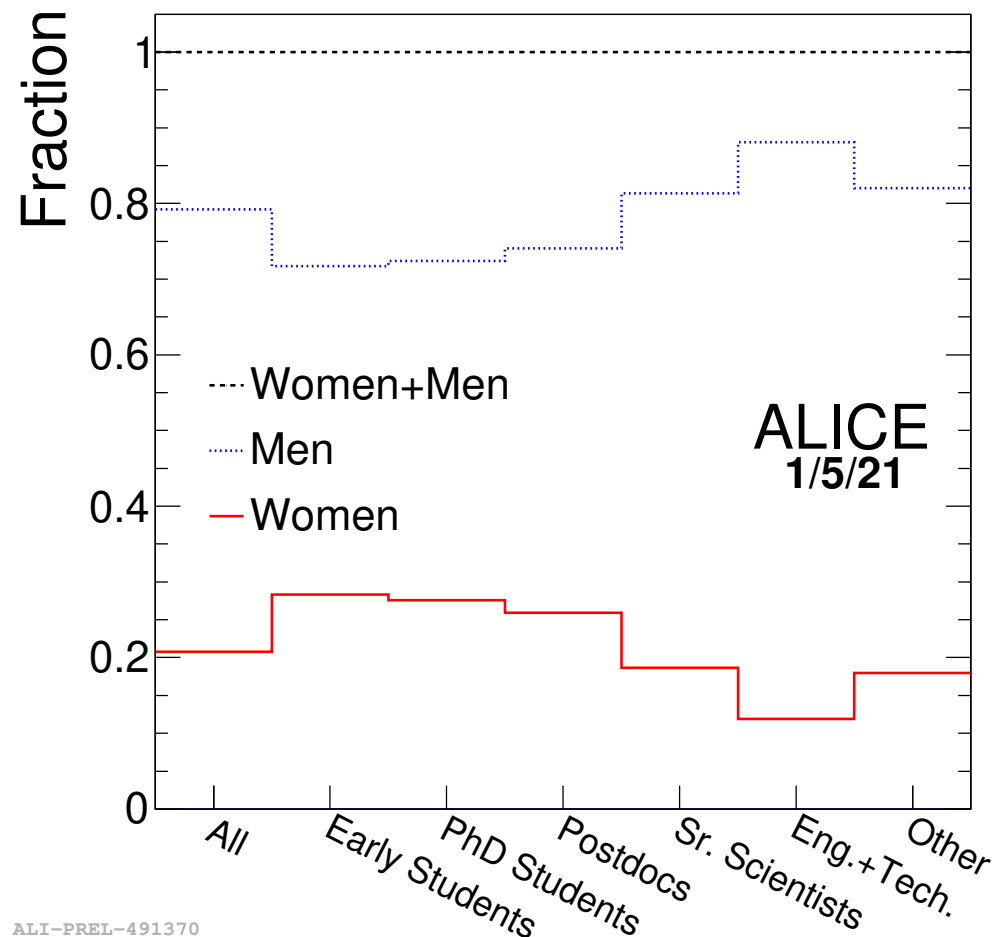


ALICE



ALI-PREL-491374

Fraction of women and men in each geographical region
(CMC= Central Europe, Mediterranean, and the Caucasus)

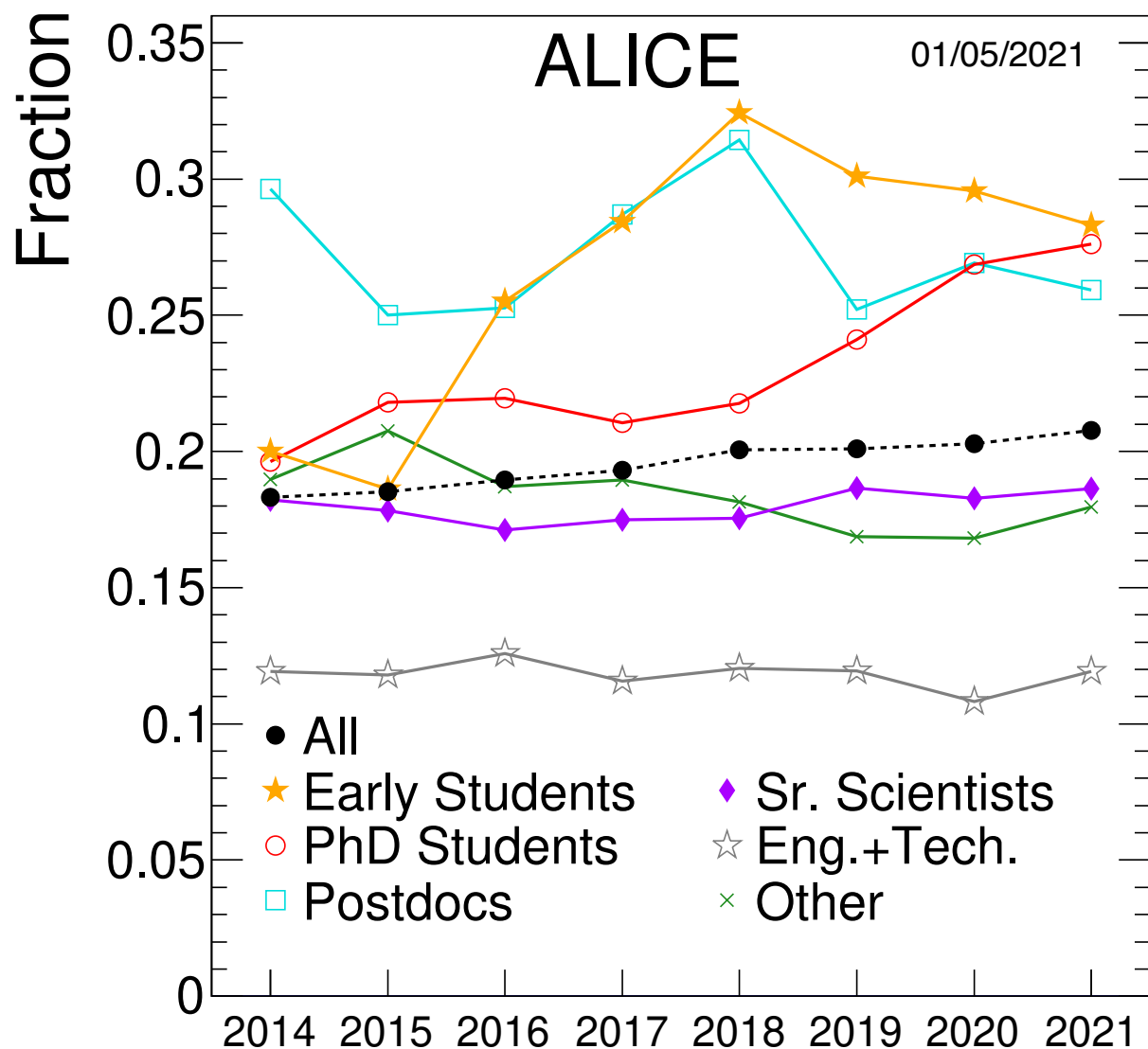


ALI-PREL-491370

Fraction of women and men in each employment category
• Above average fraction of women among Early students, Ph.D. students and postdocs



ALICE



Fraction of people in each employment category who are women

- Increasing trend for Ph.D. students
- Fraction of early students and Ph.D. students has increased over time from ~20% to ~28%
- Flat trend for scientists

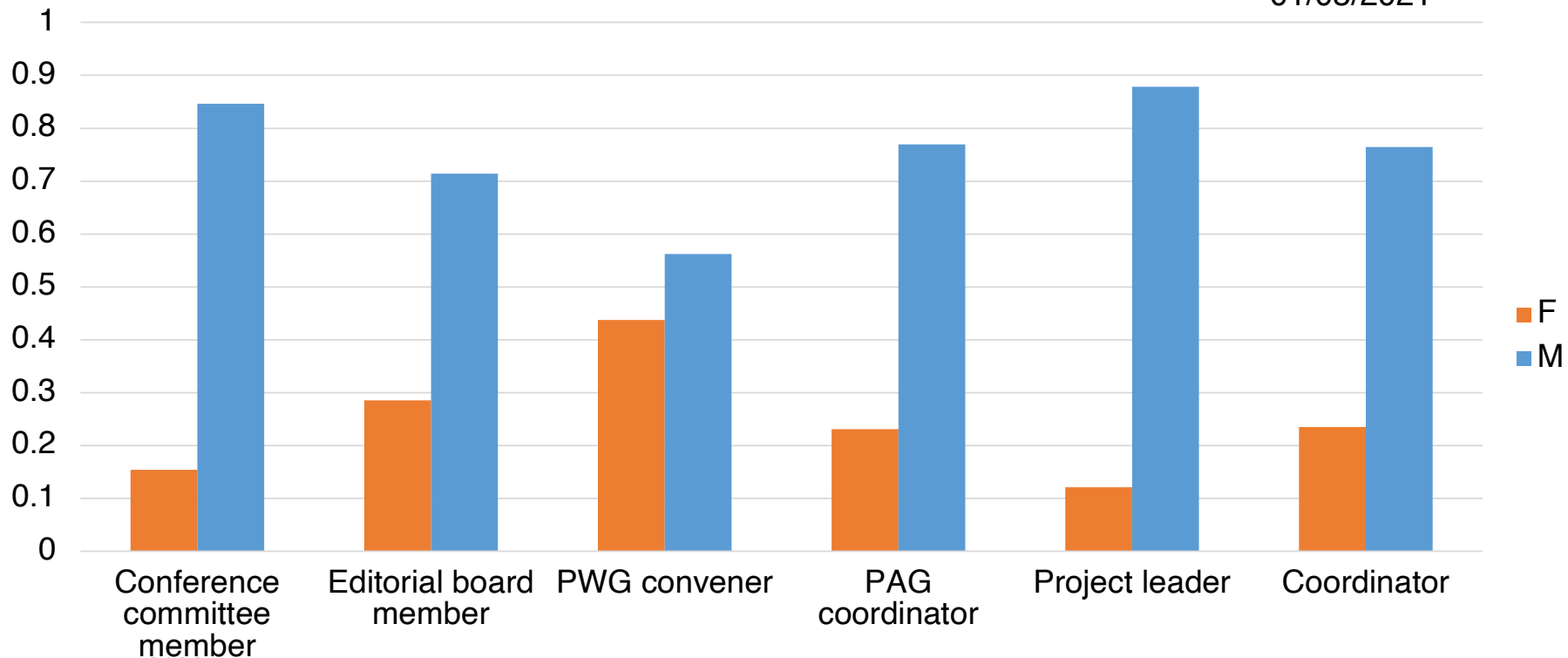
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ALICE

Fraction of women and men by responsibility

01/05/2021



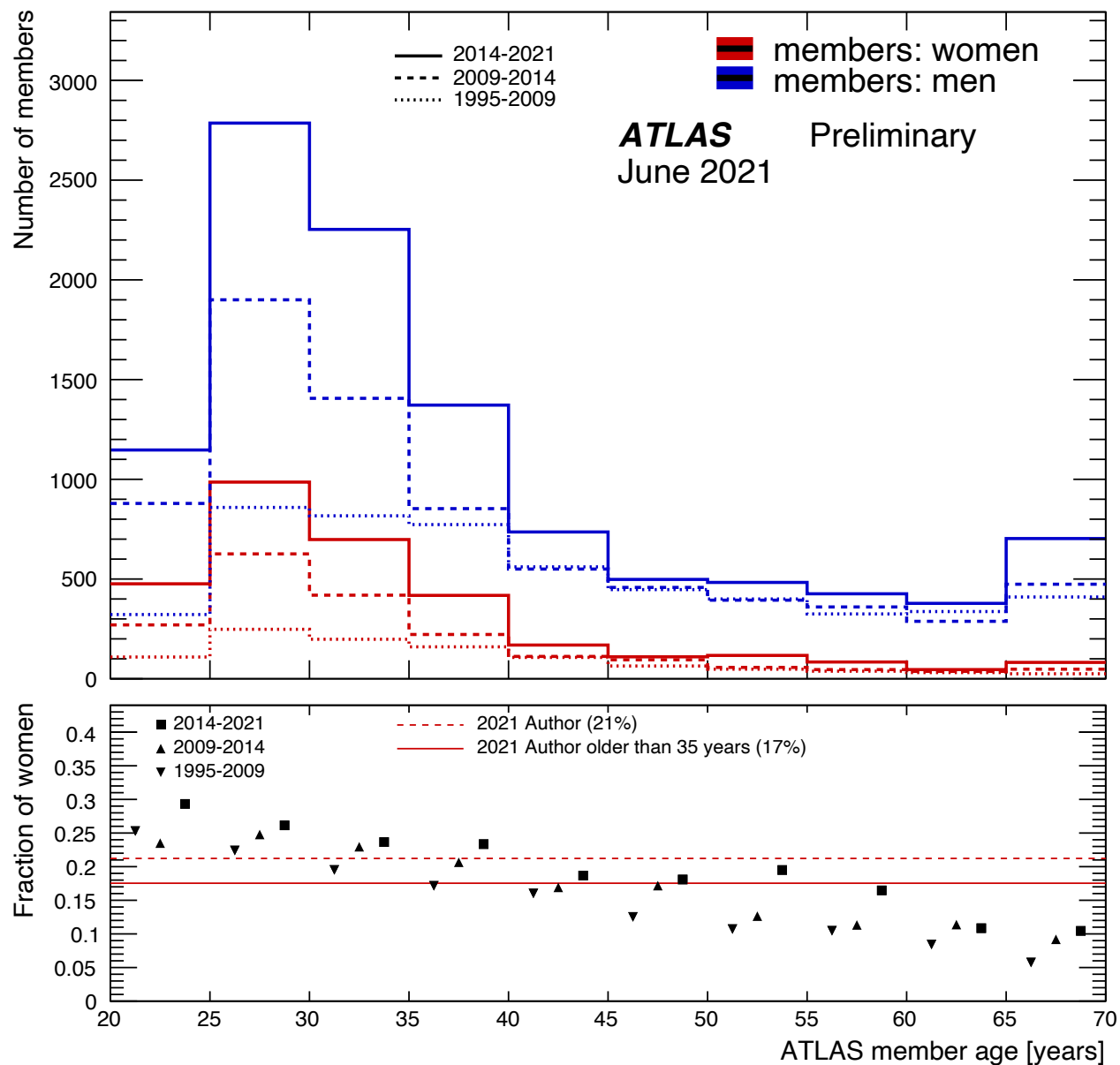
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Fraction of women and men by responsibility

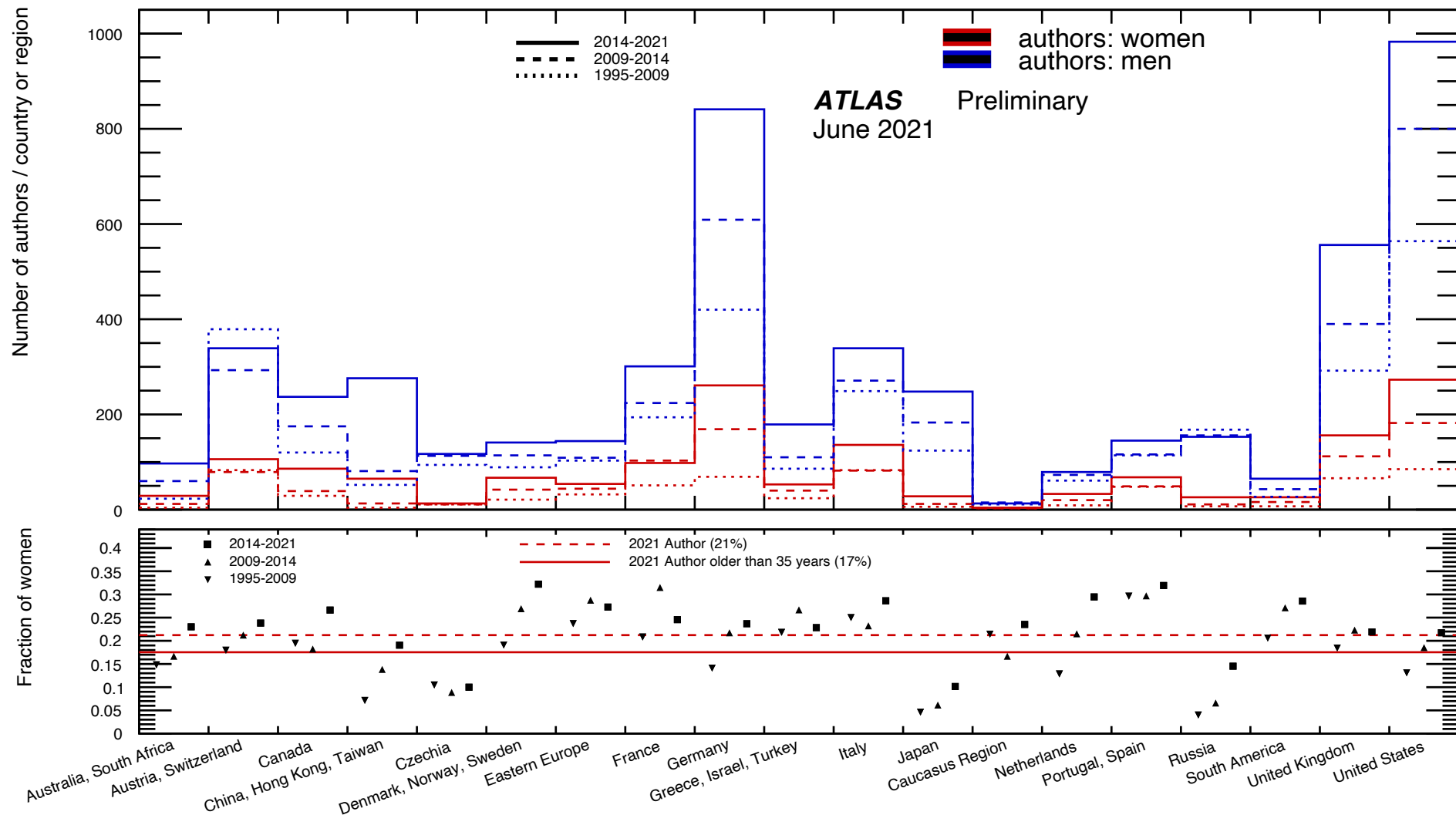
- Above average fraction of women for EB, PWG (physics working group), PAG (physics analysis group) conveners and first level coordinators (technical, physics, EB and CC chair)

Number and fraction of women and men by age

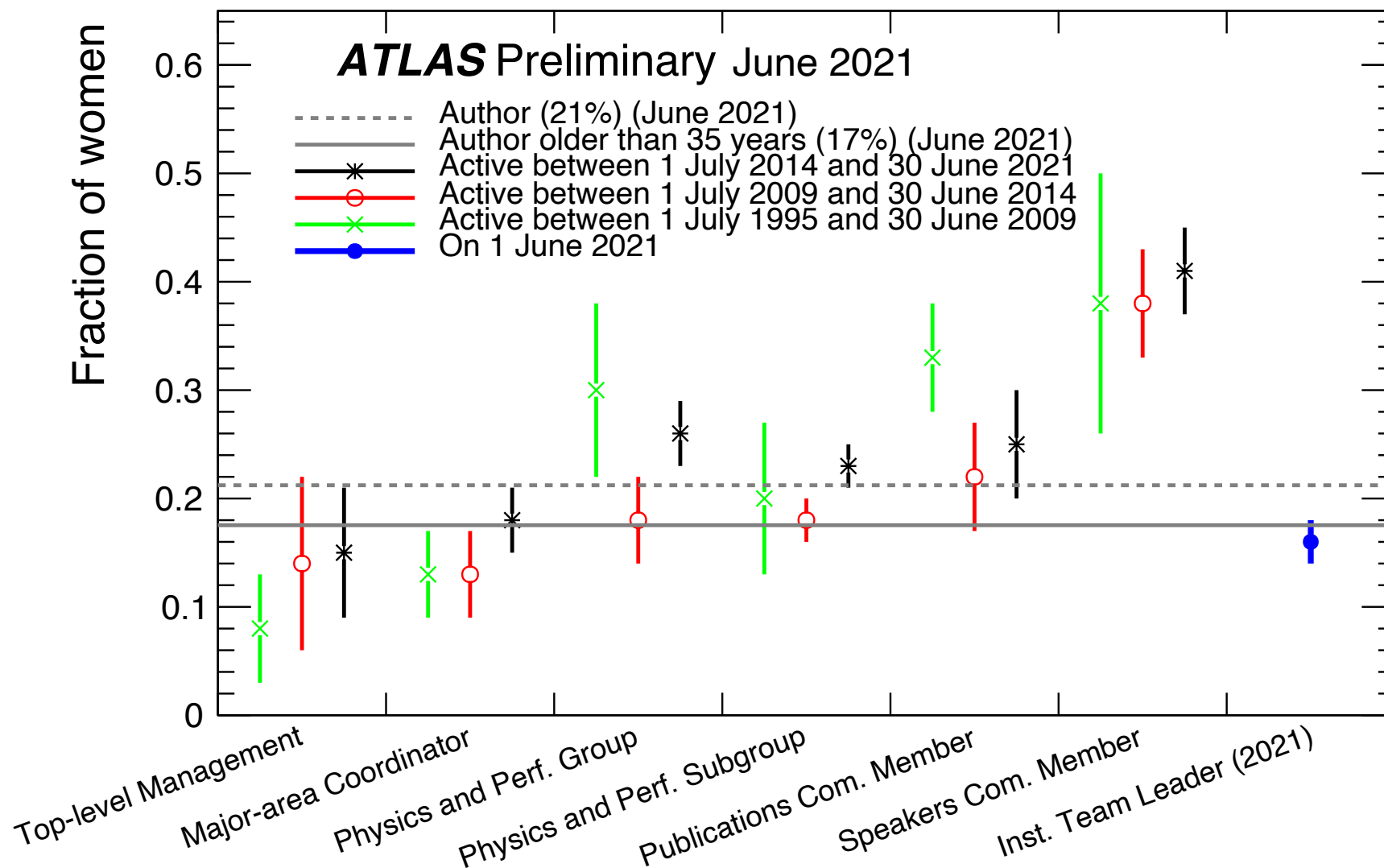
- Above average fraction of women for ATLAS members aged between 20 and 40



Number and fraction of women and men by geographical region (authors)

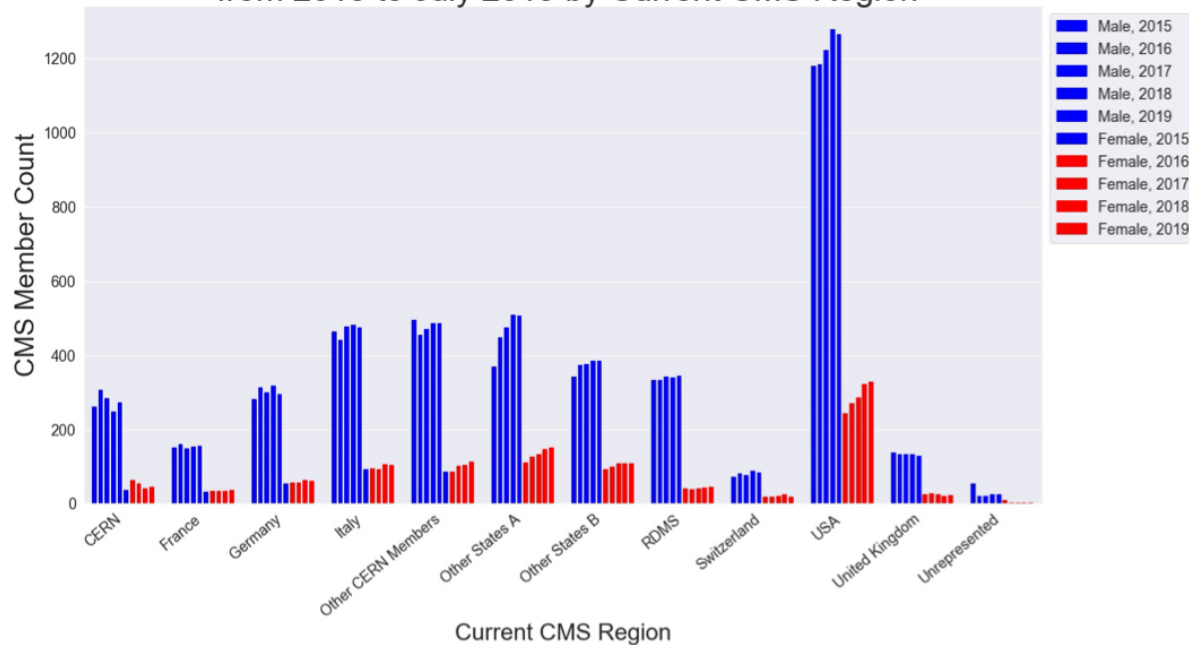


- Fraction of women by responsibility
- Above average fraction of women for Physics and Performance Subgroup, Publication Com. members and Speakers Com. members

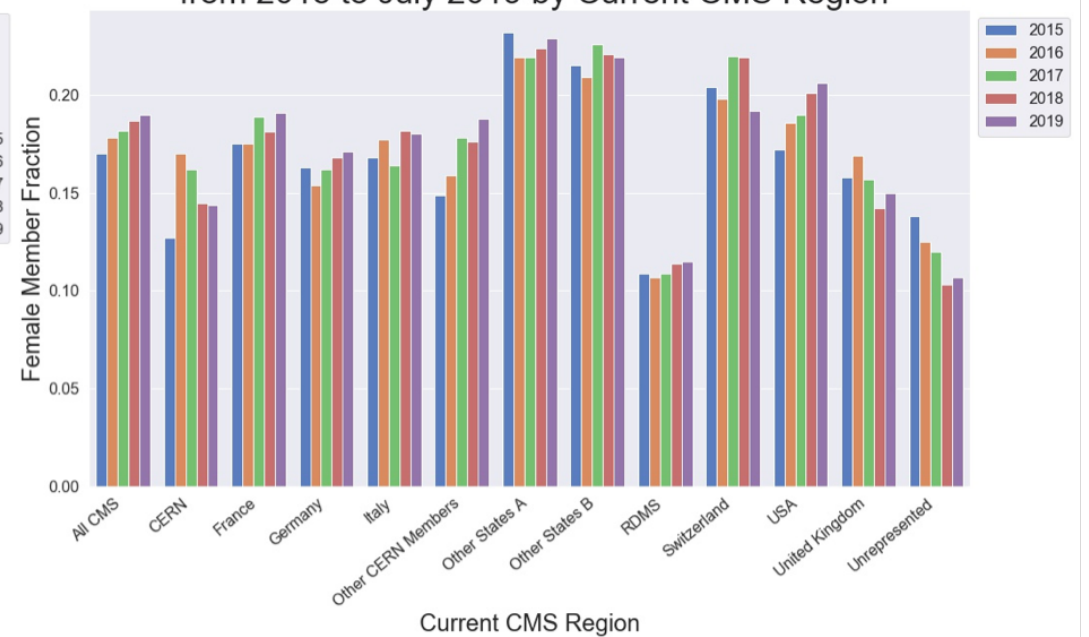




Yearly CMS Member Counts by Gender from 2015 to July 2019 by Current CMS Region



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



RDMS: Russia and Dubna member states

Other CERN members: Austria, Belgium, Bulgaria, Finland, Greece, Hungary, Poland, Portugal, Serbia, Spain

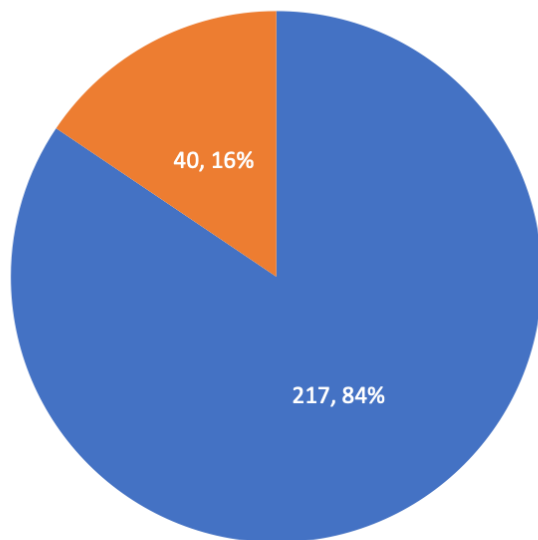
Other States A: China, India, Iran, Korea, Malaysia, New Zealand, Pakistan, Sri Lanka

Other States B: Bahrain, Brazil, Colombia, Croatia, Cyprus, Ecuador, Egypt, Estonia, Ireland, Kuwait, Lebanon, Lithuania, Mexico, Montenegro, Oman, Qatar, Saudi Arabia, Turkey, Ukraine



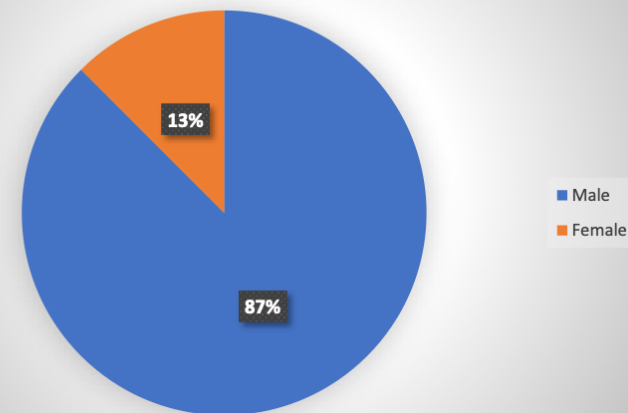
PAG/POG positions (2007-2020)

PAG/POG Gender 2007-2020

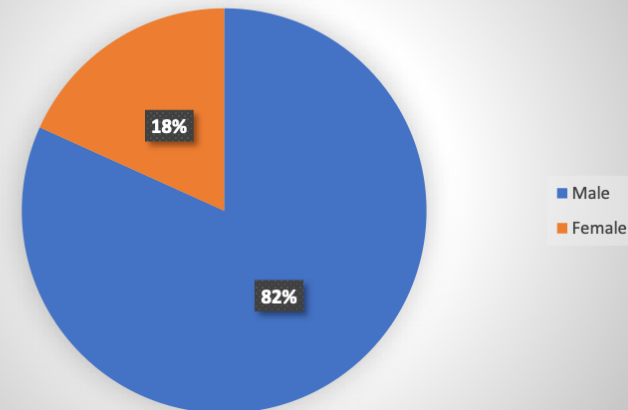


POG: Physics Object Group
PAG: Physics Analysis Group

POG Gender 2007-2020

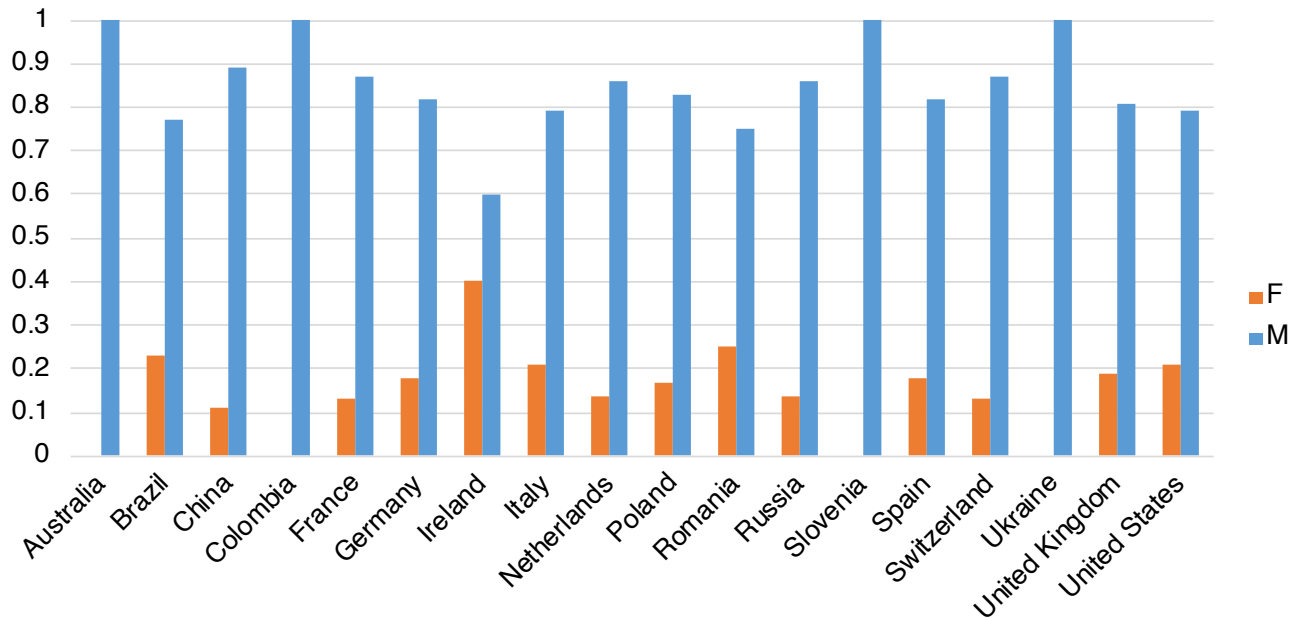


PAG Gender 2007-2020

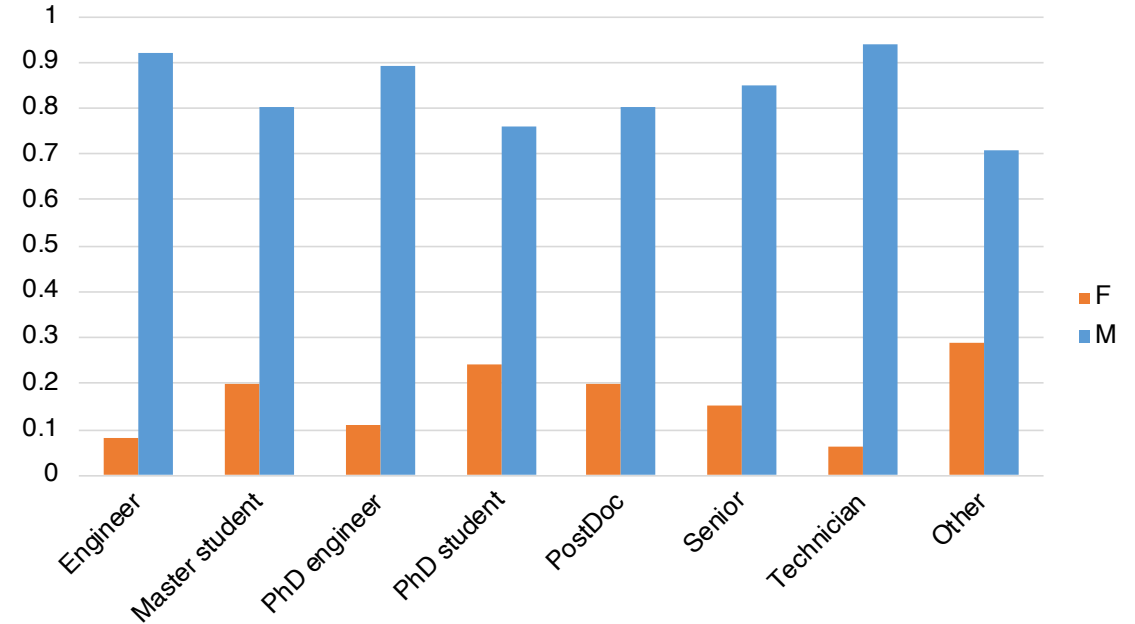




Fraction of women and men by country



Fraction of women and men by employment category

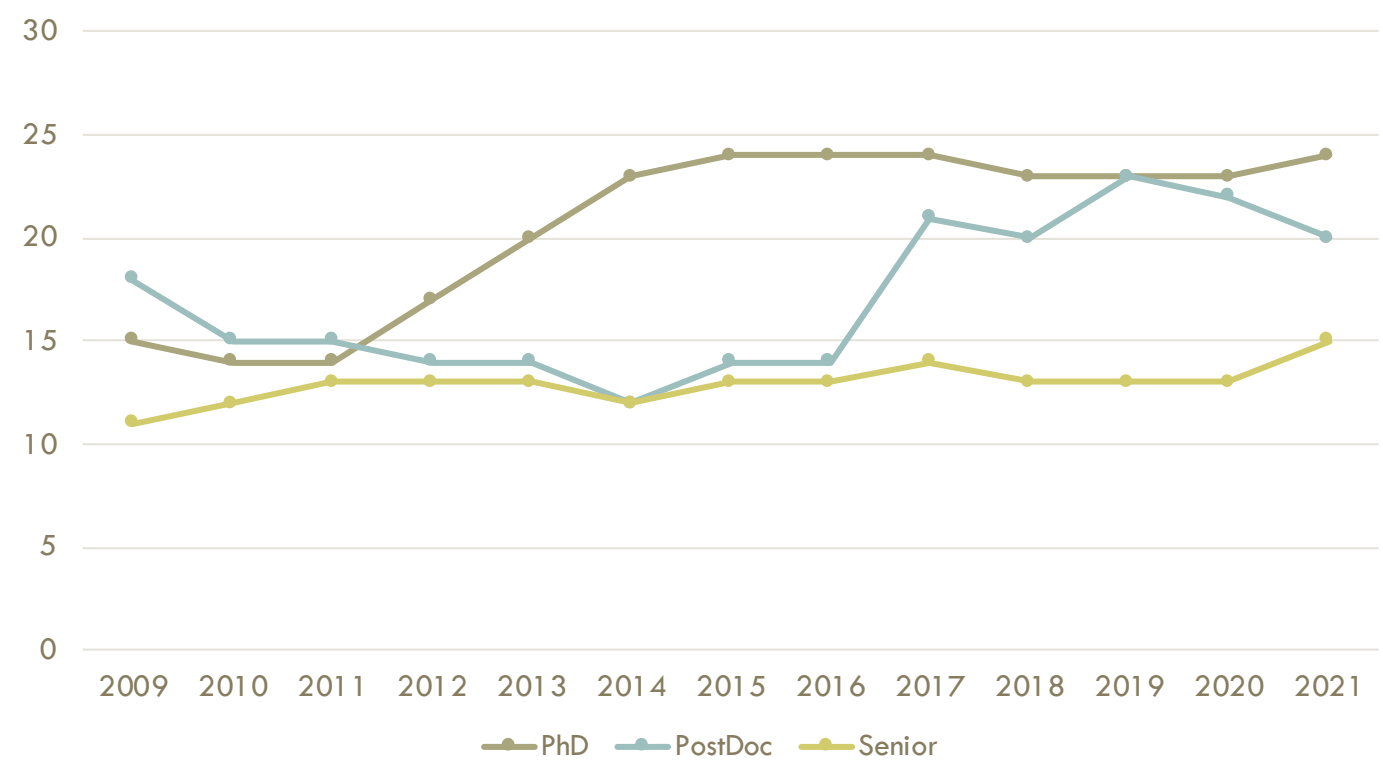


Members database contains active LHCb members and their corresponding job titles.

Fraction above average for Ph.D. students and other employment categories. Fraction below average for engineers and technicians.



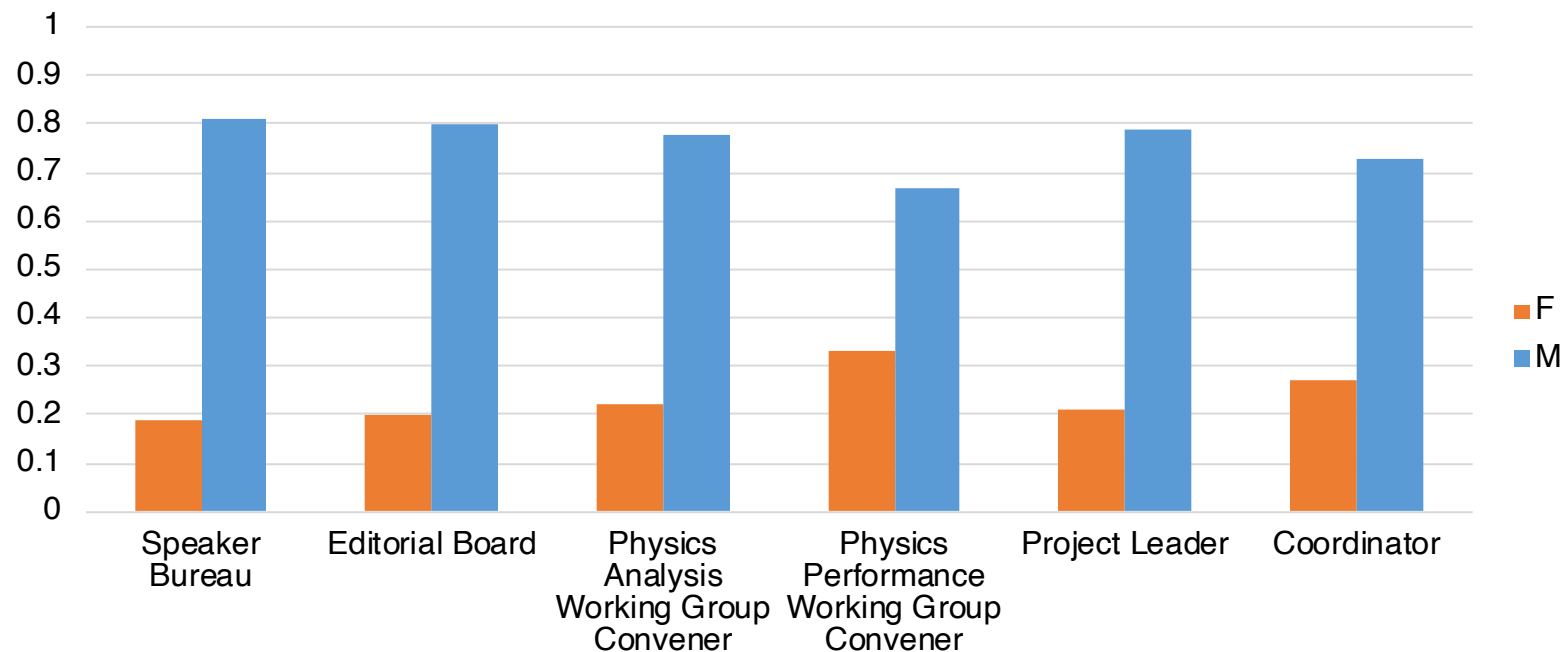
LHCb: percentage of women vs year



Increasing trend for Ph.D. students and seniors. Decreasing trend for postdocs.



Fraction of women and men by responsibility



Fraction of women and men by responsibility type

- Above average fraction of women for Physics Analysis Working Group convener, Physics Performance Working Group convener, and coordinators.

Conclusion

- The four LHC experiments diverse in terms of collaboration size and geographical regions
- Percentage of women around 20% for all the four experiments
- Increasing trend of women percentage for students for ALICE and LHCb
- Higher fraction of women than average in physics analysis and performance groups for ALICE, ATLAS and LHCb
- Many diversity related activities in all the experiments. For more details, see plenary talk “*Report on Diversity, Inclusion and Outreach activities at LHC*” by Brajesh Choudhary on Monday 7 June