



Evolution of Regional, Age and Gender Demographics in the ATLAS Collaboration

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On behalf of the ATLAS Collaboration

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Radboud Universiteit



Nikhef

Outline

Presenting data showing aspects of the demographics and diversity of the collaboration with regards to gender and age, and how the various regions of the world are represented in ATLAS.

Study released 2016 and updated 2019.

There are absolutely more aspects of diversity, which are not reflected here due to the limitations in the data.



Dr Clara Nellist

@claranellist

I have a joke about being a woman in physics, but you probably won't think it's funny until my male colleague repeats it 10 minutes later.

22:05 · 24 Jul 20 · [Twitter Web App](#)

Likes

times people liked this Tweet

85,525

Retweets

times people retweeted this Tweet

9,174

Replies

replies to this Tweet

423

**This data, and how it evolves
over time, gives us a tool to see
the broad picture and trends.**

Status: November 2018



- | | | |
|------------------------|-------------|--------------|
| Albania | Hong Kong | Peru |
| Algeria | Hungary | Philippines |
| Argentina | Iceland | Poland |
| Armenia | India | Portugal |
| Australia | Indonesia | Romania |
| Austria | Iran | Russia |
| Azerbaijan | Iraq | Saudi Arabia |
| Bangladesh | Ireland | Senegal |
| Belarus | Israel | Serbia |
| Belgium | Italy | Slovakia |
| Bosnia and Herzegovina | Japan | Slovenia |
| Botswana | Jordan | South Africa |
| Brazil | Kazakhstan | South Korea |
| Bulgaria | Kenya | Spain |
| Burundi | Kyrgyzstan | Sri Lanka |
| Canada | Latvia | Sudan |
| Chile | Lebanon | Swaziland |
| China | Lithuania | Sweden |
| Colombia | Luxembourg | Switzerland |
| Costa Rica | Madagascar | Syria |
| Croatia | Malaysia | Taiwan |
| Cuba | Malta | Thailand |
| Cyprus | Mauritius | Tunisia |
| Czech Republic | Mexico | Turkey |
| Denmark | Mongolia | Ukraine |
| Ecuador | Montenegro | UAE |
| Egypt | Morocco | UK |
| Finland | Nepal | USA |
| France | Netherlands | Uruguay |
| Georgia | New Zealand | Uzbekistan |
| Germany | Niger | Venezuela |
| Ghana | Nigeria | Vietnam |
| Greece | Norway | Zambia |
| Honduras | Pakistan | Zimbabwe |
| | Palestine | |

ATLAS Collaboration member nationalities

Over 5500 members of 103 nationalities



Data collected from

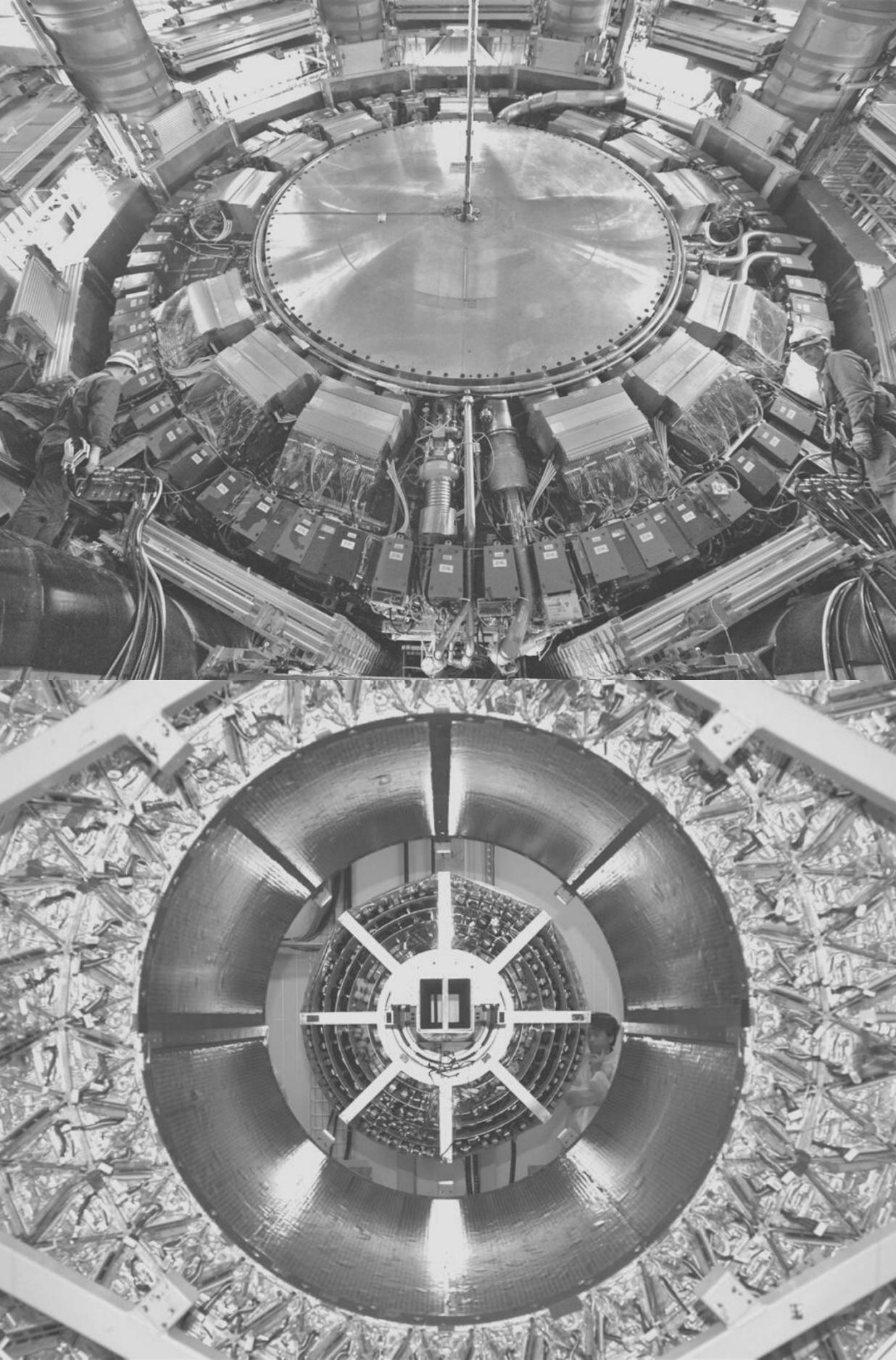
CERN Administrative Database

Name
Legal Gender: male, female
Date of birth
Profession
Affiliation/Institution
Nationality

Augmented by other databases that track participation

Contributions of each member
Technical roles
Leadership roles
Recognitions

**and explored for various correlations
with gender and regional distribution.**

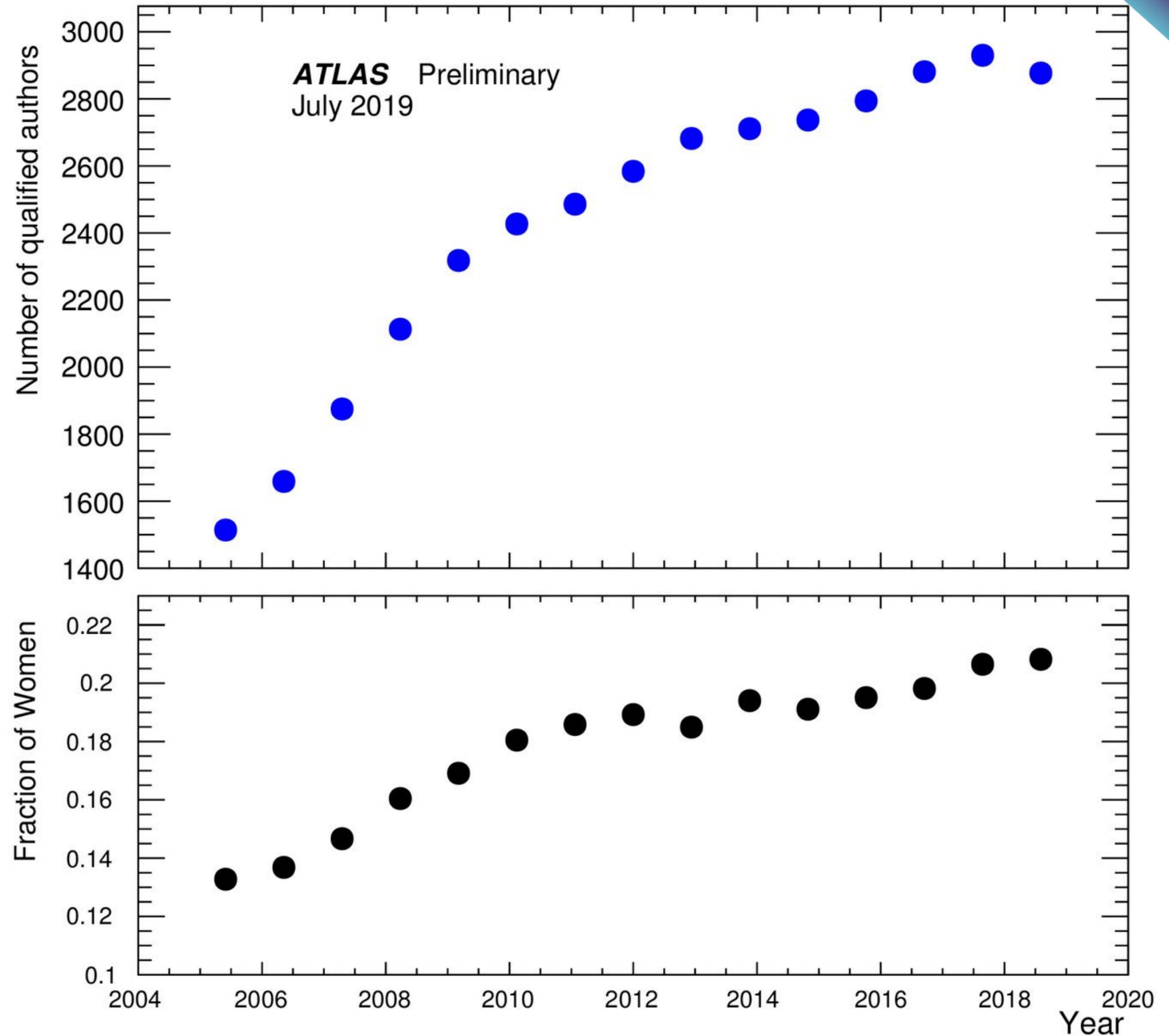


Definitions

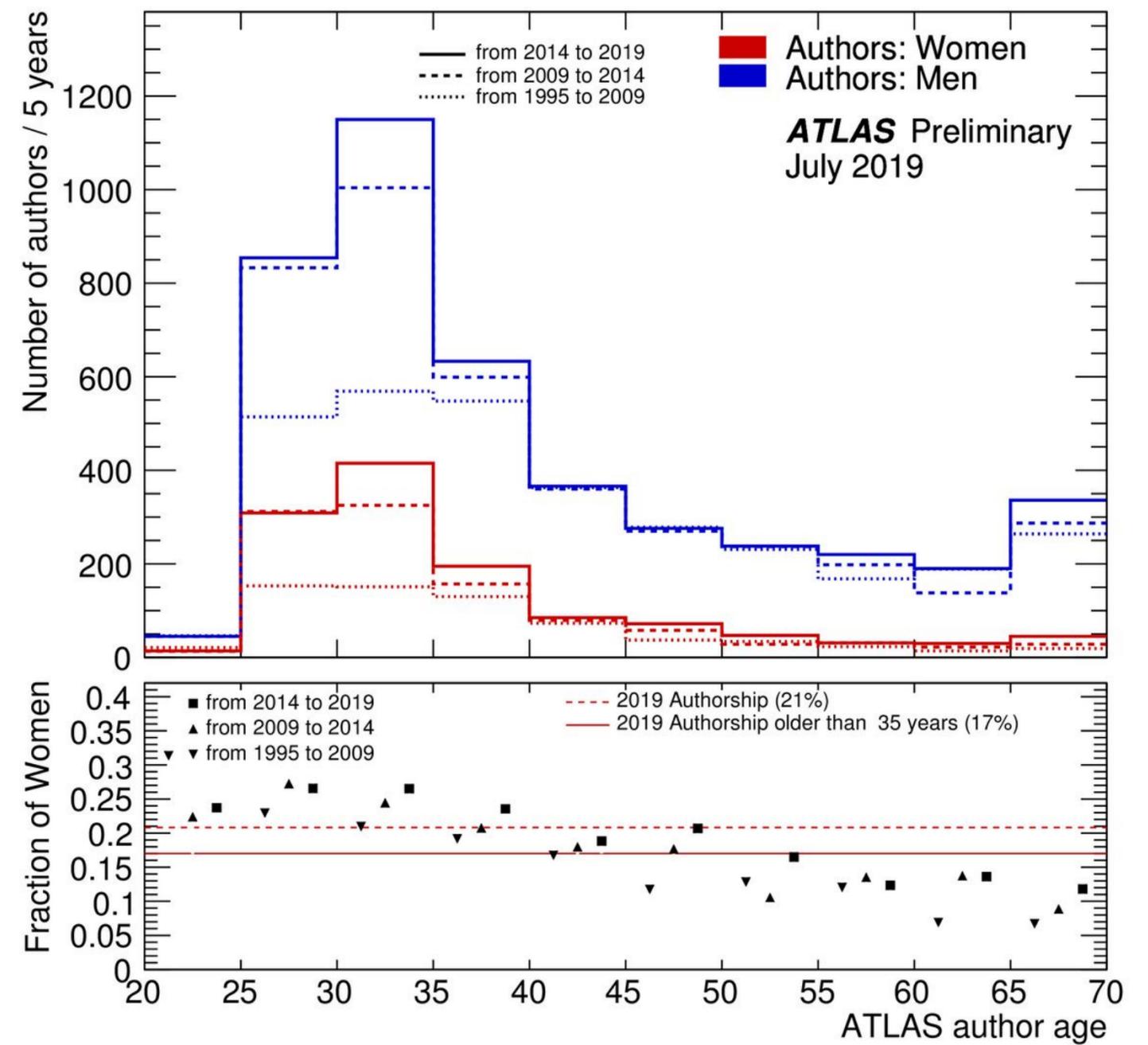
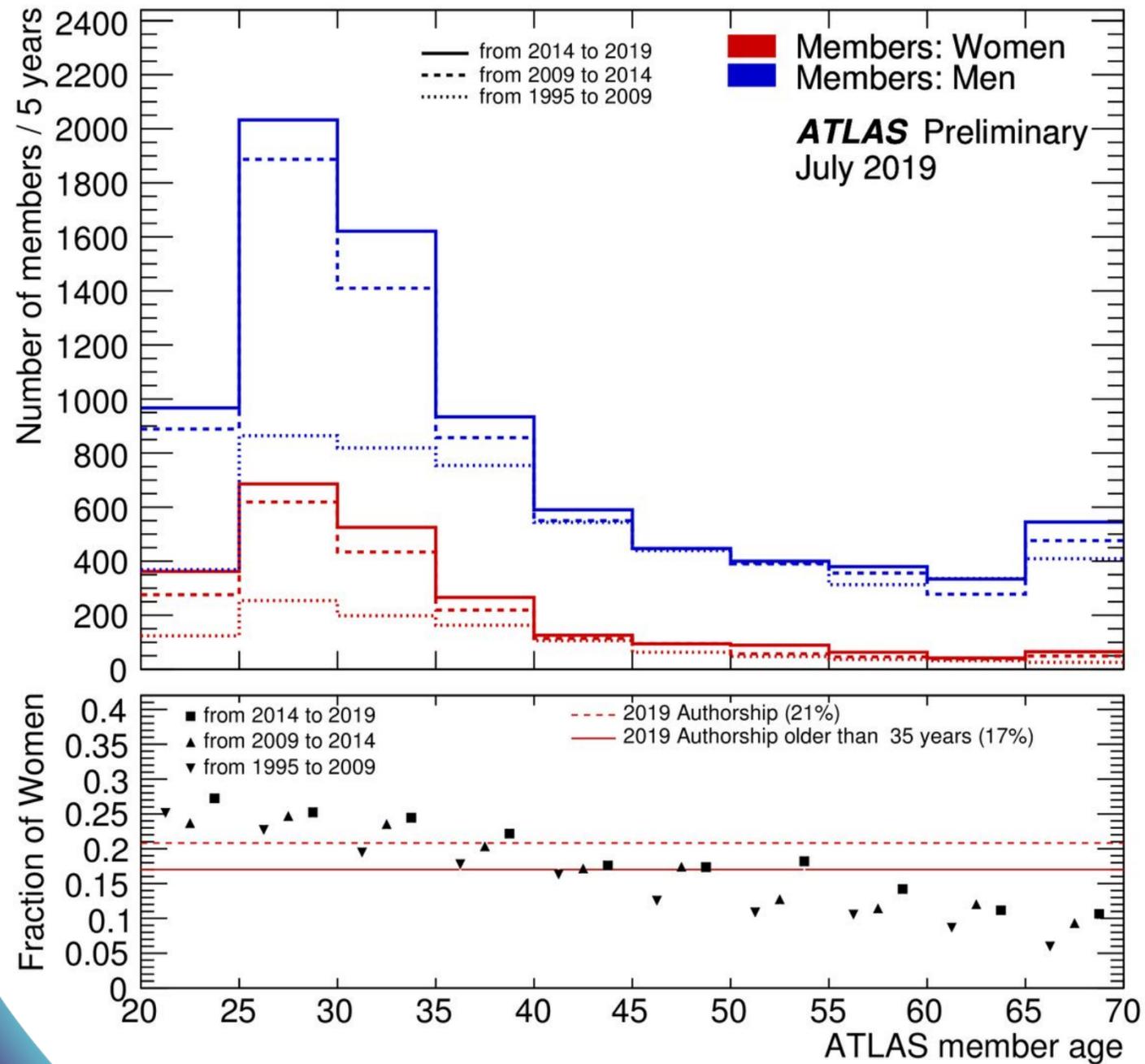
- **Member:** belongs to the ATLAS Collaboration.
- **Author:** who signs ATLAS publications.
- **Gender:** legal gender, as stated by government issued ID (generally passport), option between* male or female for CERN directory.
- **Home institution:** research or educational organisation to which a person belongs.

*Some countries do allow a third option, but this is not yet recognised at CERN.

Total number of ATLAS authors on 1st July each year



Age



Institutes in ATLAS



ATLAS Collaboration member nationalities

Over 5500 members of 103 nationalities



Status: June 2020

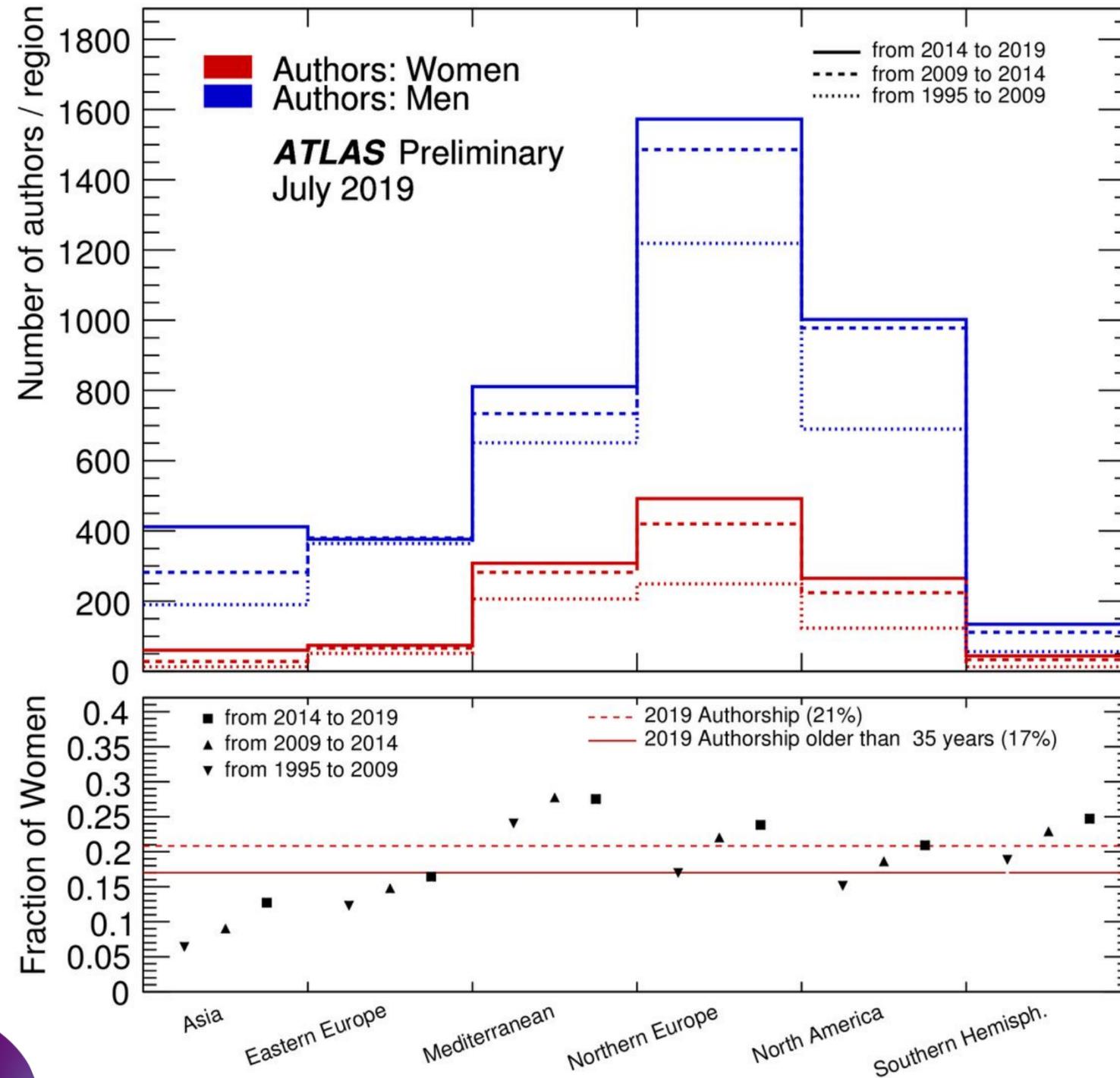
- Argentina
- Armenia
- Australia
- Austria
- Azerbaijan
- Belarus
- Brazil
- Canada
- Chile
- China
- Colombia
- Czech Republic
- Denmark
- France
- Georgia
- Germany
- Greece
- Israel
- Italy
- Japan
- Morocco
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Russia
- Serbia
- Slovakia
- Slovenia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

ATLAS Collaboration

181 institutions (237 institutes) from 38 countries

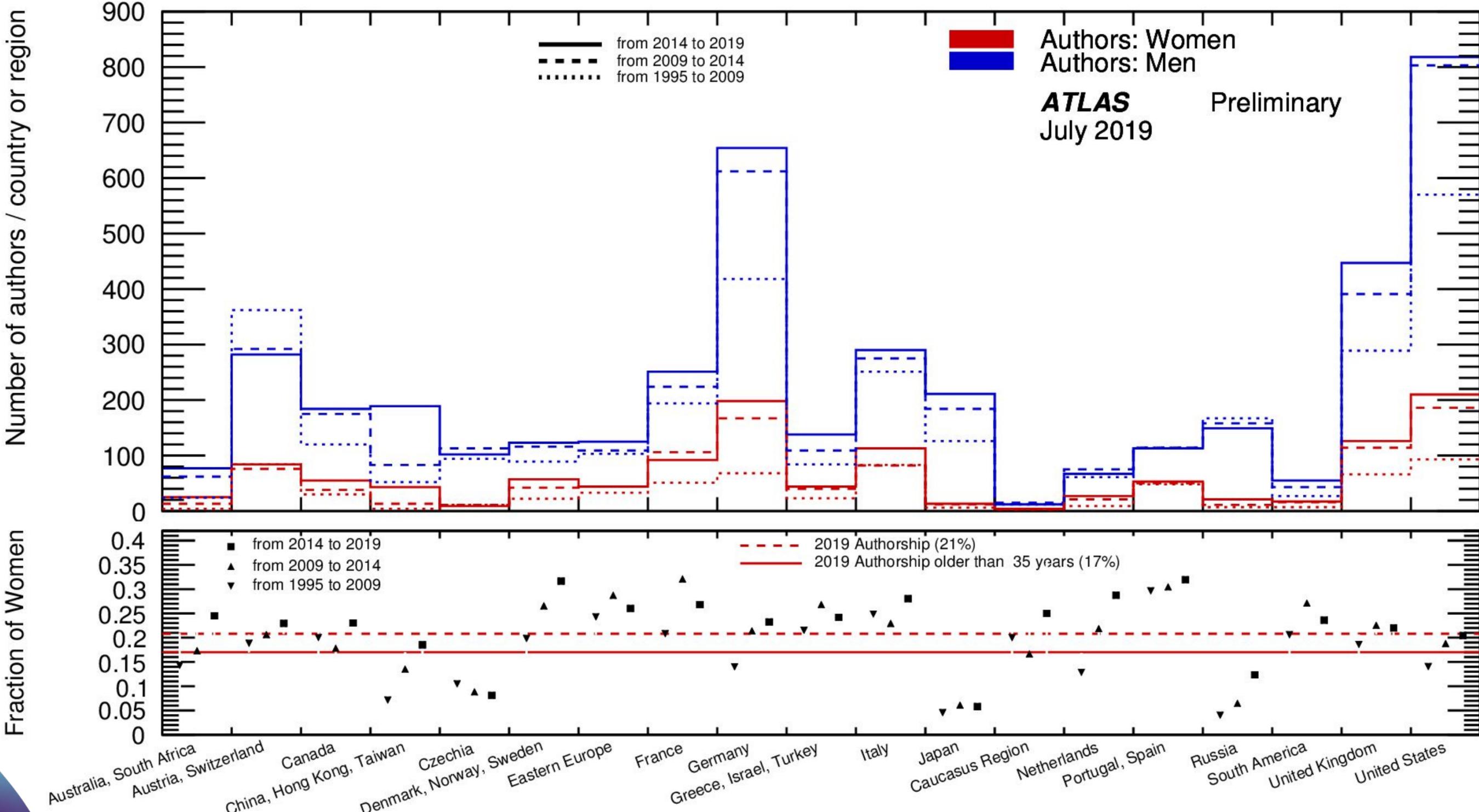


Region of affiliation

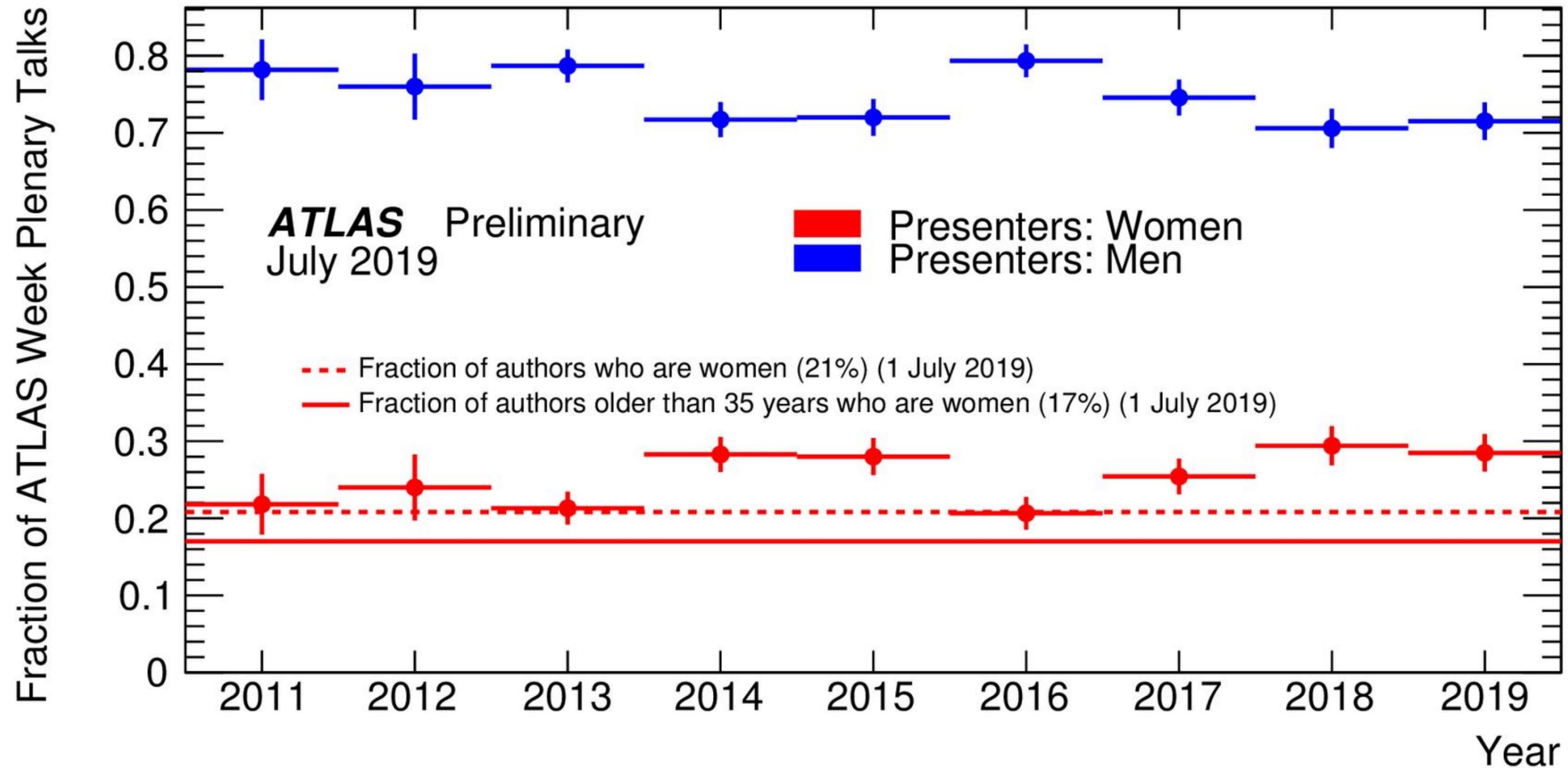


- **Asia:** Armenia, Azerbaijan, China, Georgia, Japan, Taiwan
- **Eastern Europe:** Belarus, Czechia, Poland, Romania, Russia (including JINR Dubna), Serbia, Slovakia, Slovenia
- **Mediterranean:** France, Greece, Israel, Italy, Portugal, Spain, Turkey, Morocco
- **North America:** Canada, USA
- **Northern Europe:** Austria, Denmark, Germany, the Netherlands, Norway, Sweden, Switzerland (including CERN), UK
- **Southern Hemisphere:** Argentina, Australia, Brazil, Chile, Colombia, South Africa

Geographic distribution



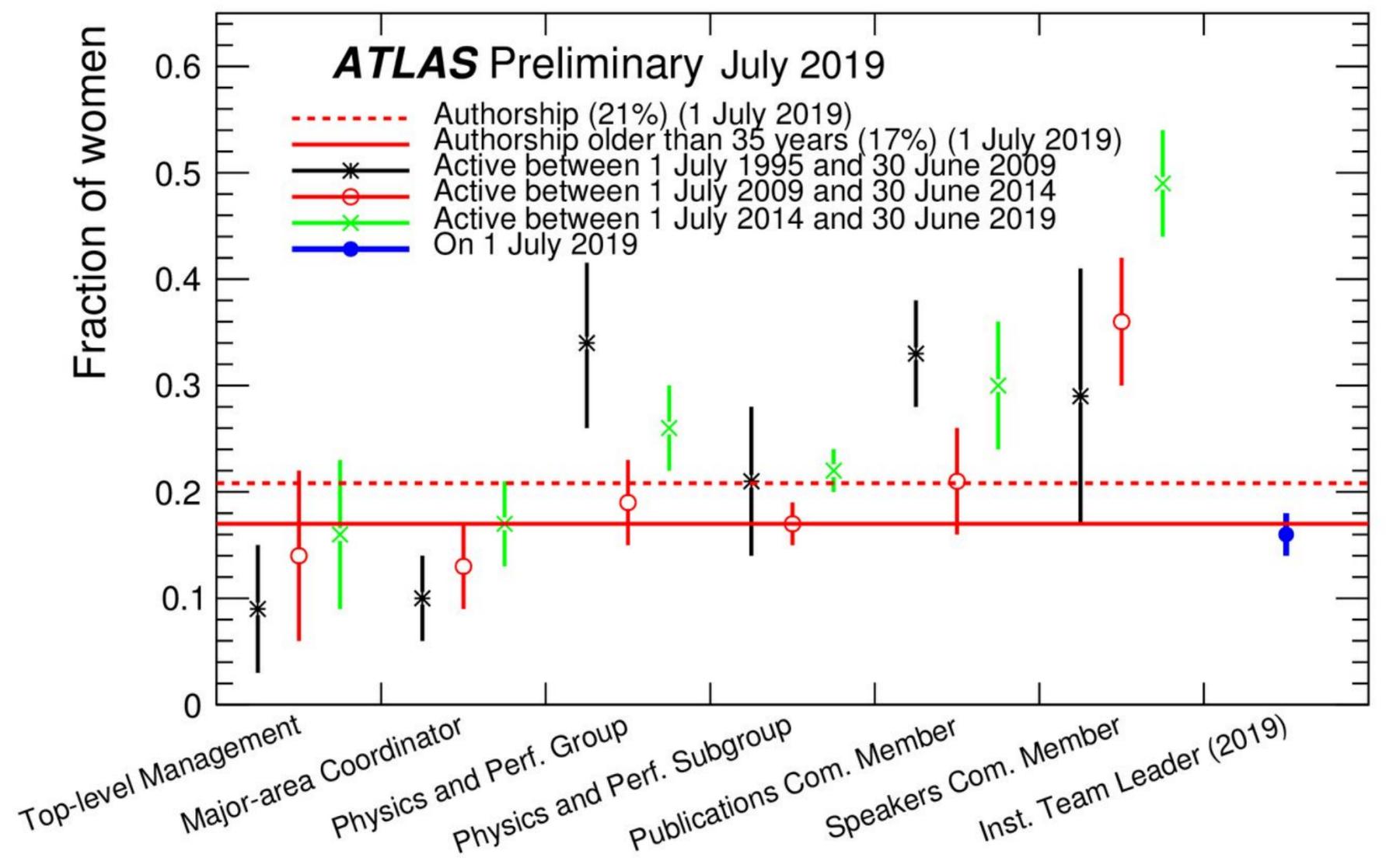
Fraction of plenary talks



Gender is derived from first name using <http://genderize.io>

- Top level management: spokesperson, 2 deputies, technical, resource, upgrade coordinator. 2y terms.
- Major area coordinators: ~16, 2y terms.
- Physics and performance group: 2 conveners per group (Combined Performance 6, Physics Analysis 12), 2y terms.
- Physics and performance subgroup: ~ 2 conveners per subgroup.
- Publications Committee: 12 members, 2y term
- Speakers Committee: 15 members, 3y term.
- Institution Team Leader: 182 ATLAS member institutions. Chosen by institutions.

Women in leadership roles



Summary

Presented data on the demographics of the ATLAS Collaboration related to gender and geographic distribution.

There are more aspects of diversity, which are not reflected here due to the limitations in the data.

Summary

Region

ATLAS has collaborators with more than 100 different nationalities, from institutions from 38 different countries.

Some regions have shown substantial growth in the number of members during the Collaboration lifetime.

Reminder: this is based on institutional affiliations.

Summary

Age and gender

About 20% of the collaborators are women.

A decrease in the fraction of women with an increase in age is observed.

Participation of women speakers at ATLAS week talks is currently greater than the fraction of women authors.

The fraction of leadership roles held by women members has increased over the last 5 years for all roles.



Thank you!

Acknowledgements: Some slides were based on those prepared by Ana Maria Rodriguez for a previous version of this talk.