

WHO WE ARE: EVOLUTION OF REGIONAL, AGE & GENDER DEMOGRAPHICS IN THE ATLAS COLLABORATION



FOR THE

ATLAS
EXPERIMENT

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THE UNIVERSITY
of EDINBURGH

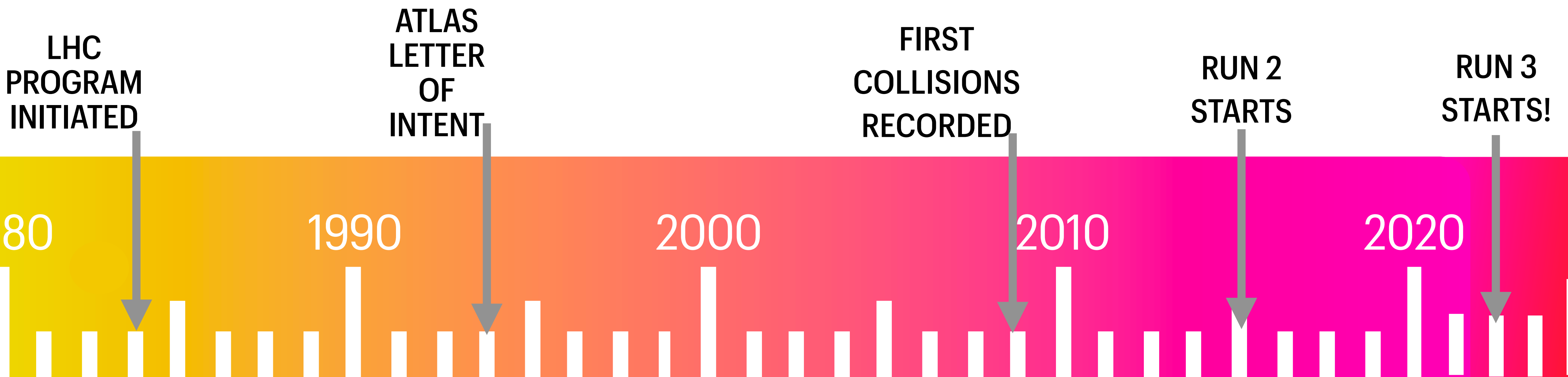


ABOUT ATLAS



The ATLAS Collaboration constructed, and now operates and upgrades*, a general-purpose particle physics detector - the ATLAS experiment - at the Large Hadron Collider at CERN.

* upgrades during shutdown periods

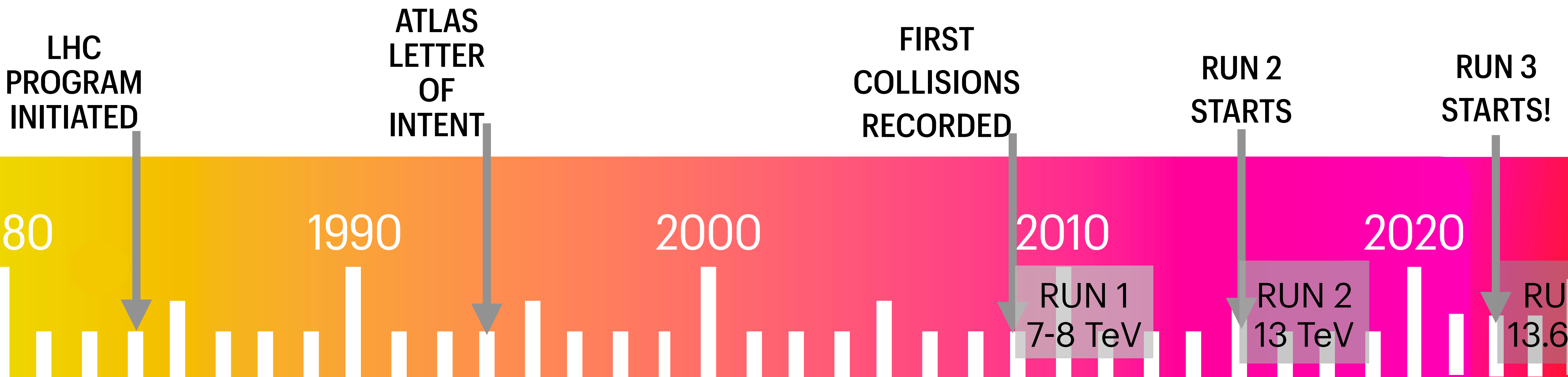


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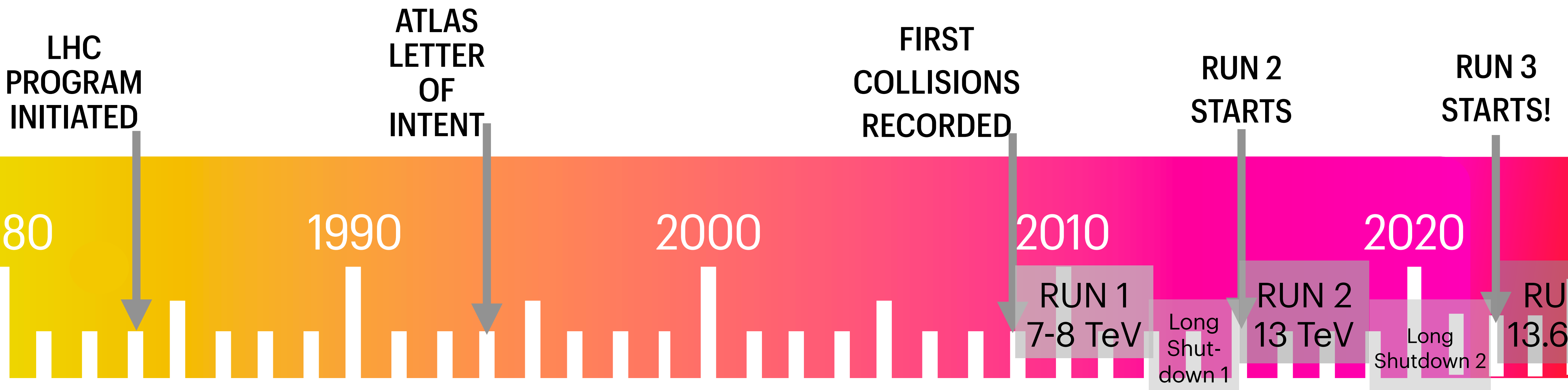


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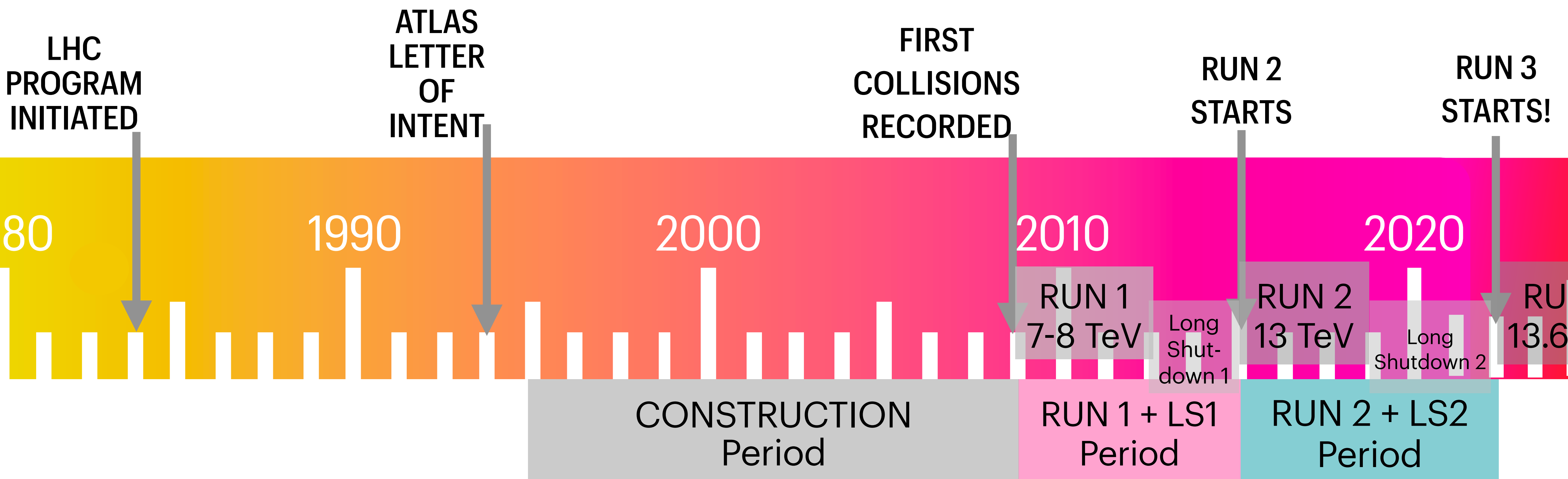


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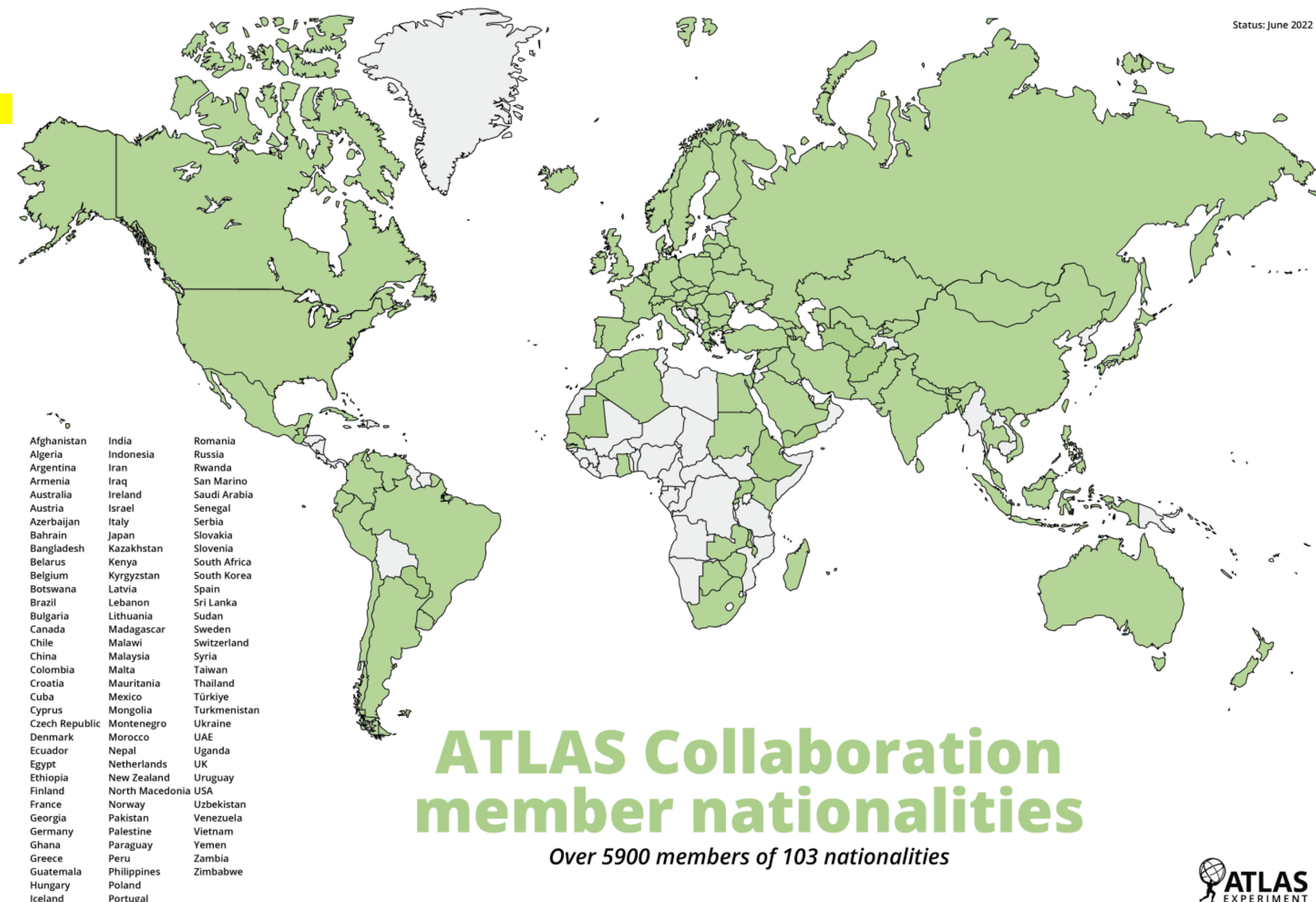
DIVERSITY

ATLAS is a large international collaboration: almost 6000 members.

As a community, we acknowledge our responsibility to society is greater than to just pursue our physics goals.

We have the opportunity to be an agent for change; we have a responsibility to provide an equitable environment.

I believe that the result will lead to the fullest outcomes of our physics goals.



**“APPRECIATING DIFFERENCES,
FOSTERING EQUALITY,
AND PROMOTING COLLABORATION”
— CERN CODE OF CONDUCT**

**“unite people from all over the world to push the frontiers of science and technology, for the benefit of all”
— CERN MISSION**

PURPOSE OF THIS ANALYSIS

- ✦ ATLAS study group on diversity was established in 2015, with the following aims:
 - Collect data on demographics, participation, leadership, recognition of contributions.
 - Assess diversity and recommendations to best support it.
 - **Contribute** to studies on **regional demographics** in science.
 - **Contribute** to studies on the **role of women** in science.
- ✦ **Collaboration contacts for Diversity and Inclusion** were established in 2017.

DIVERSITY & INCLUSION CONTACTS

<https://atlas.cern/diversity>

ROLE

- ◆ Act as contact for ATLAS members to discuss concerns related to diversity and inclusion;
- ◆ Maintain contacts with diversity groups or contacts in other HEP experiments and at CERN;
- ◆ Maintain a list of resources that can be referenced or employed when issues related to diversity and inclusion occur;
- ◆ Evaluate possibilities of training courses offered by CERN or external providers, and (if applicable) propose them.

ACTIVITIES

- ◆ Maintain wiki with resources;
- ◆ Foster behaviour in line with the CERN code of conduct;
- ◆ Push for inclusive language;
- ◆ Encourage diversity in appointments and speaker selection;
- ◆ Respond to concerns raised (sometimes anonymously).

A photograph of a busy computer lab or data center. In the foreground, a man with glasses and a blue lanyard is working on a laptop. Behind him, another man in a green and blue plaid shirt is also working. To the left, a woman is looking at a monitor. The desks are cluttered with multiple computer monitors, keyboards, and a red Coca-Cola bottle. The background shows other people standing and working, suggesting a large-scale event or competition.

DATA AVAILABLE

DATA COLLECTED

Data collected through the CERN administrative database:

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

Augmented by ATLAS databases that track participation:

- Contributions
- Technical
- Leadership roles
- Recognitions

Data is presented in three time blocks based on the ATLAS timeline.

DEFINITIONS

Member: someone who belongs to the ATLAS collaboration.

Author: someone whose name is included in ATLAS publications.

ATLAS members become an author after: membership for 1 year,
completing a qualification task (80 working days), not an author of another LHC collaboration.

Gender: as stated by government issued ID (generally passport), option between male or female.

Home institution*: research or educational organisation to which a person belongs.

*Not to be confused with Nationality.

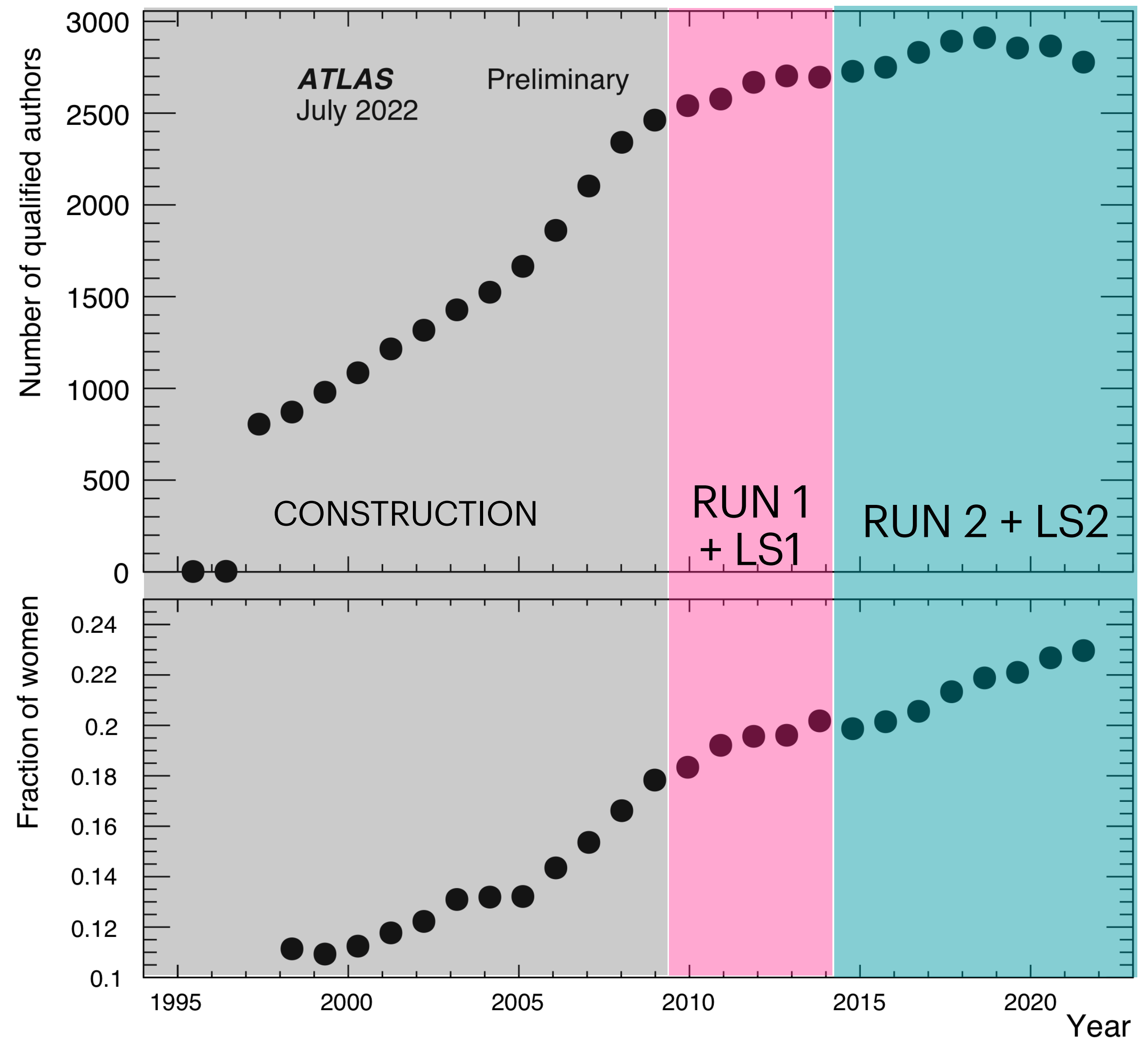
AUTHORS & FRACTION OF WOMEN AUTHORS

ATLAS benchmark values (2022):

- Fraction of women authors: **23.0%**
- Fraction of women authors aged over 35 years: **19.7%**

CERN benchmark values (2021):

- Fraction of women employed by CERN (staff & fellows): **21.4%**
- Fraction of women employed by CERN in STEM roles (staff & fellows): **12.3%**

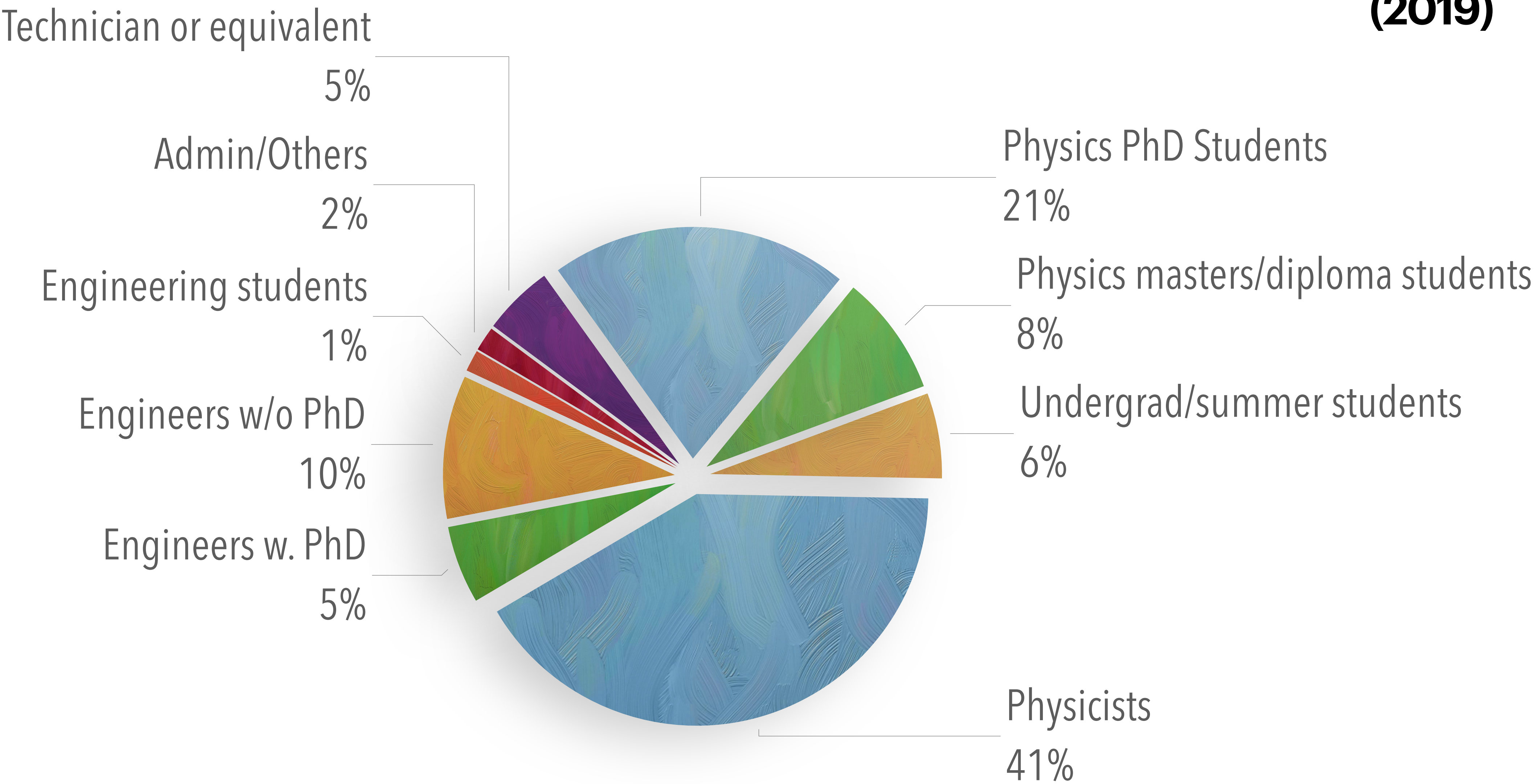


PROFESSIONS

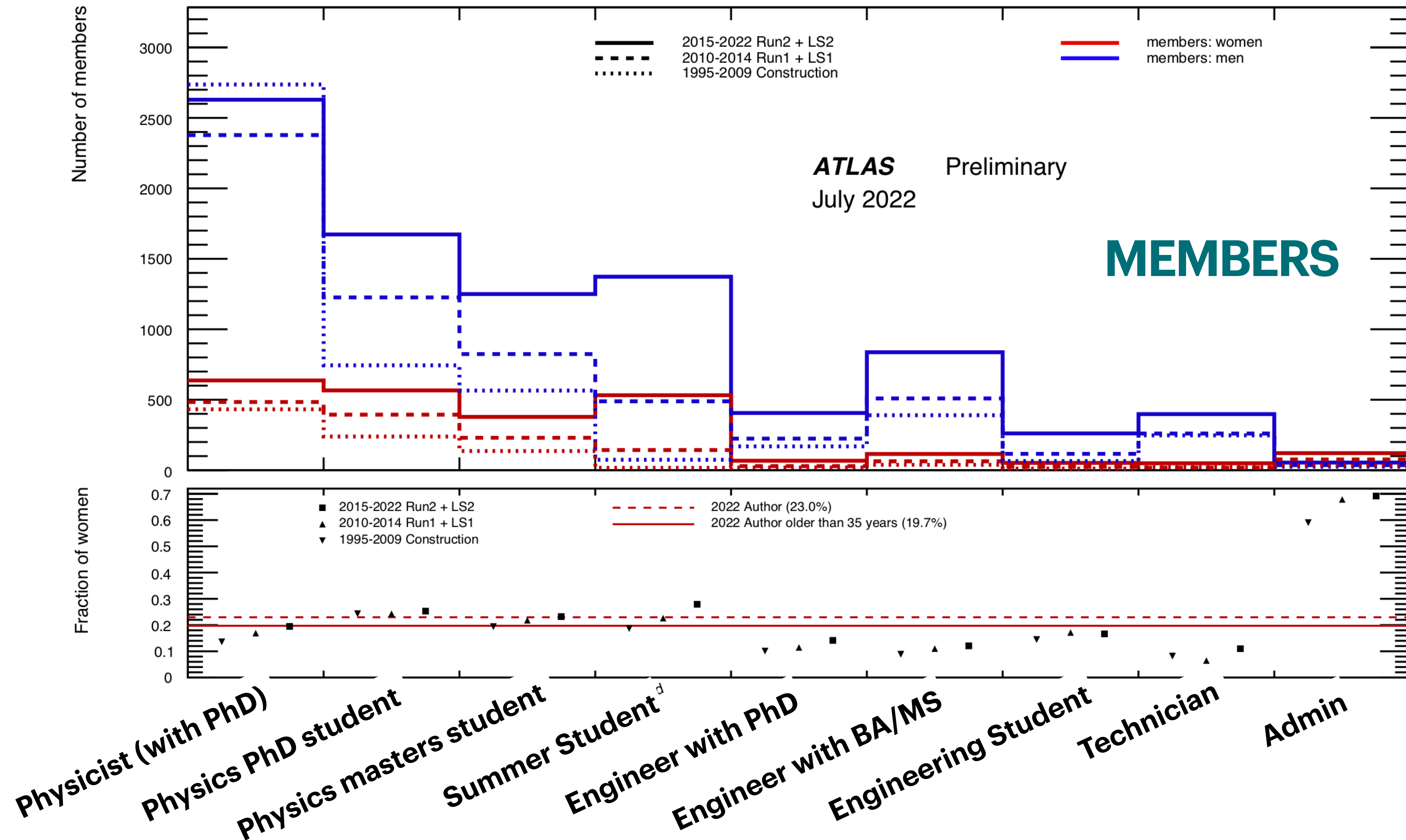
A man with grey hair and glasses, wearing a white lab coat, is working on a piece of equipment. He is using a screwdriver to adjust a component on a green circuit board. The equipment has yellow labels with text like "LY0-005" and "X-X". The background is a plain wall with yellow vertical lines.

ATLAS MEMBERS PROFESSION BREAKDOWN

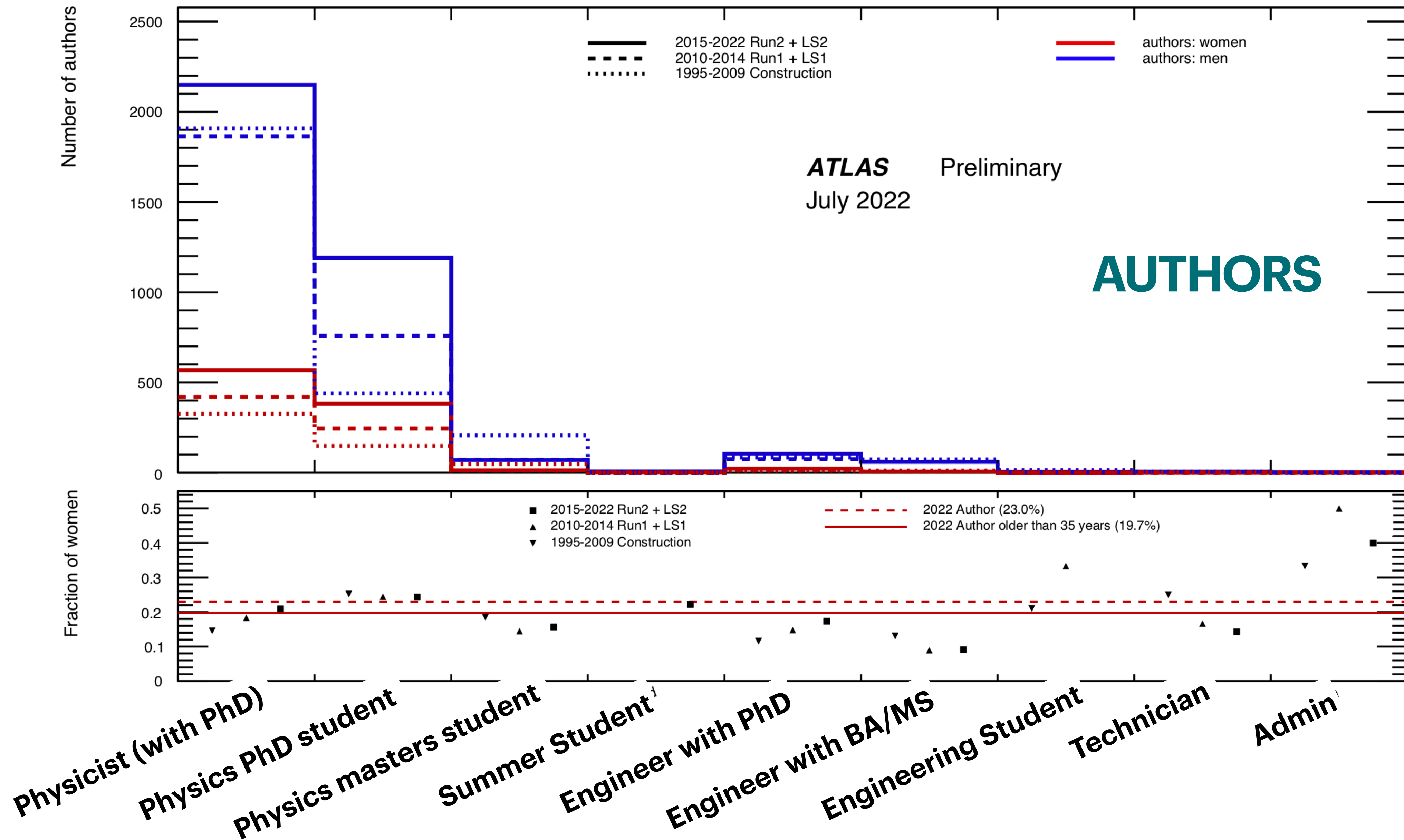
(2019)



PROFESSION BY GENDER



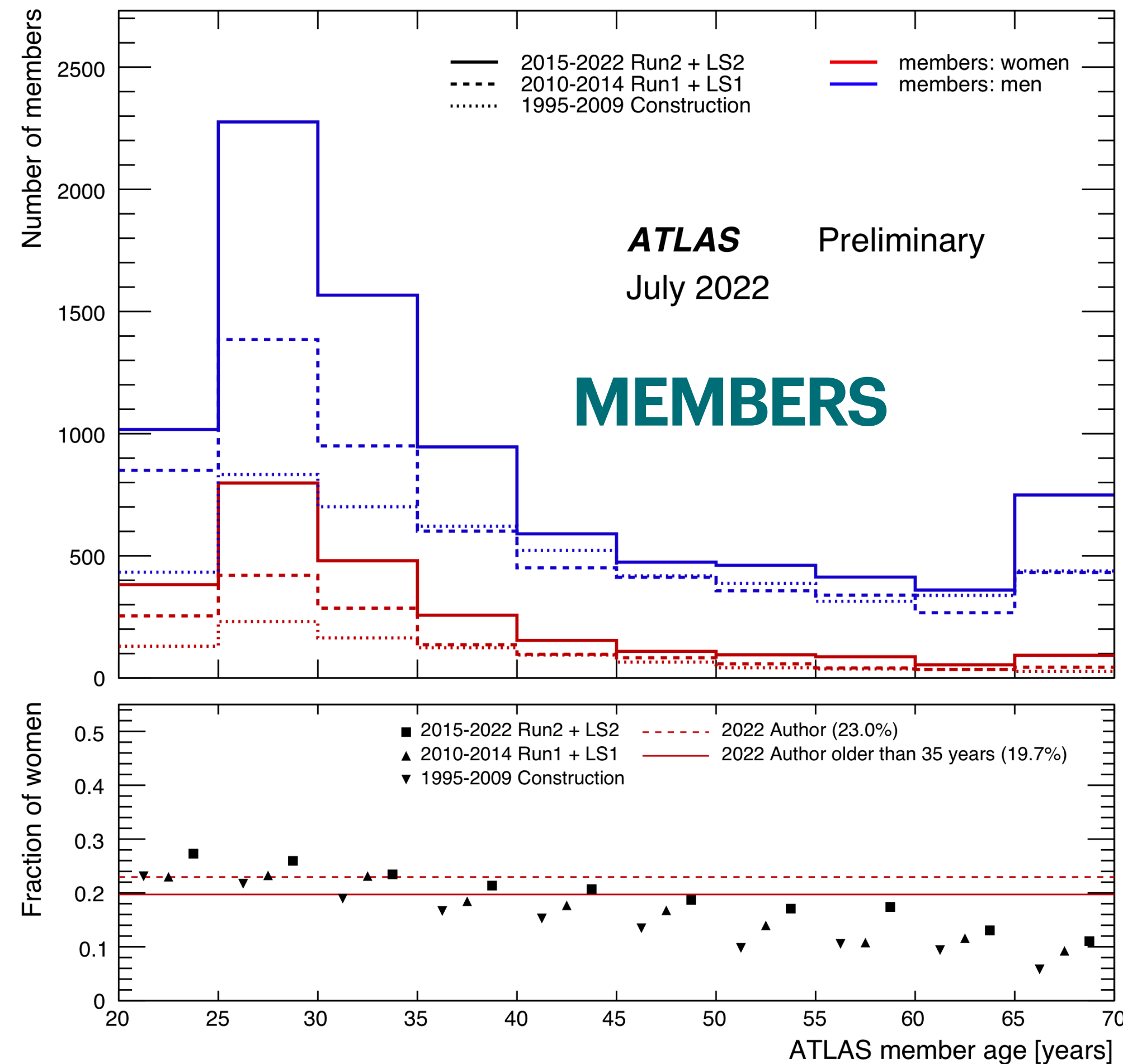
PROFESSION BY GENDER



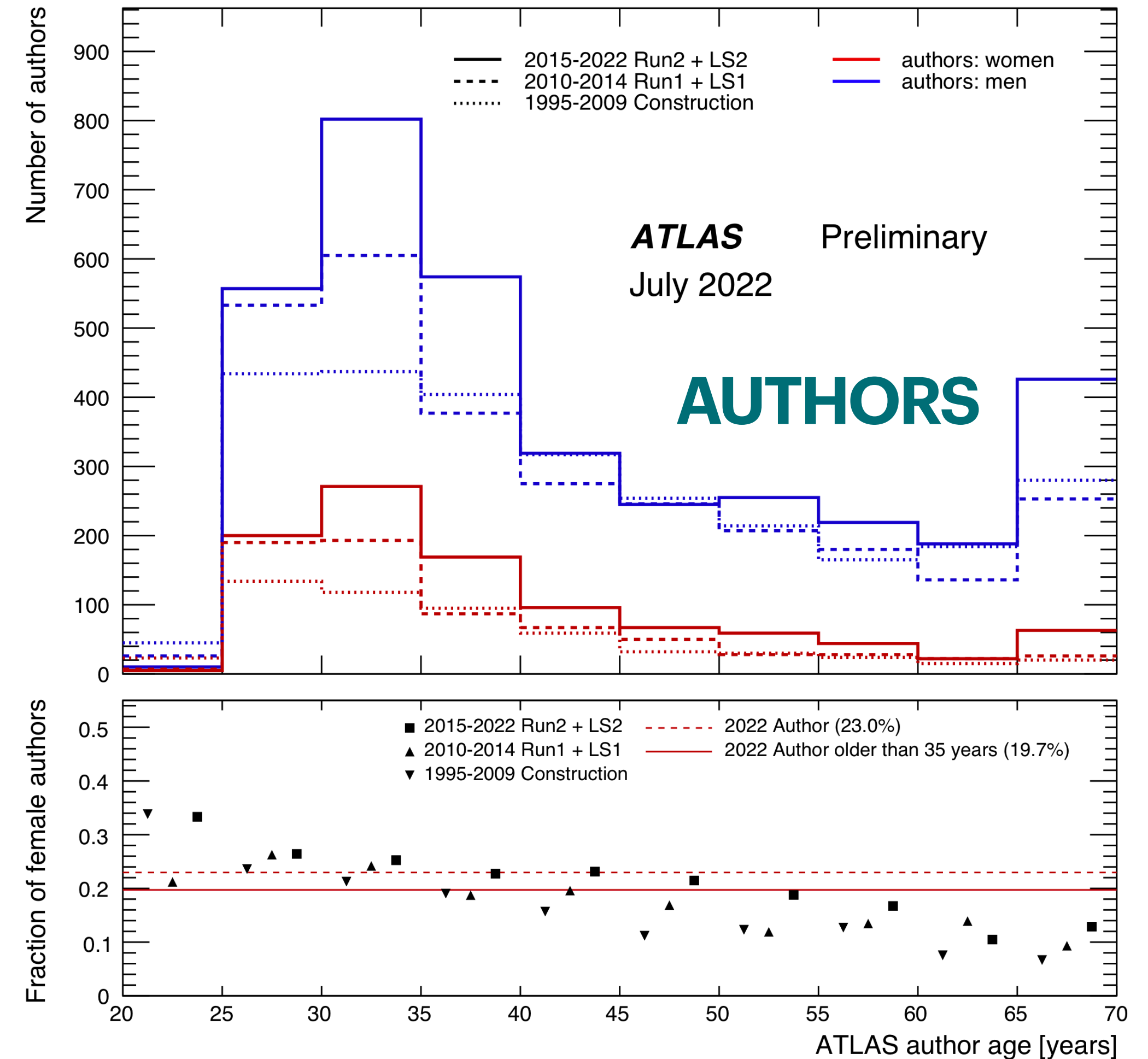


AGE

MEMBERS & AUTHORS BY AGE



- Mean age of collaboration members is becoming younger.
- Over time, the fraction of women members/authors is increasing within most age groups



- The fraction of women members & authors decreases with age.
- Overall, the fraction of women members and the fraction of women authors follow the same trend by age group as well as time period.

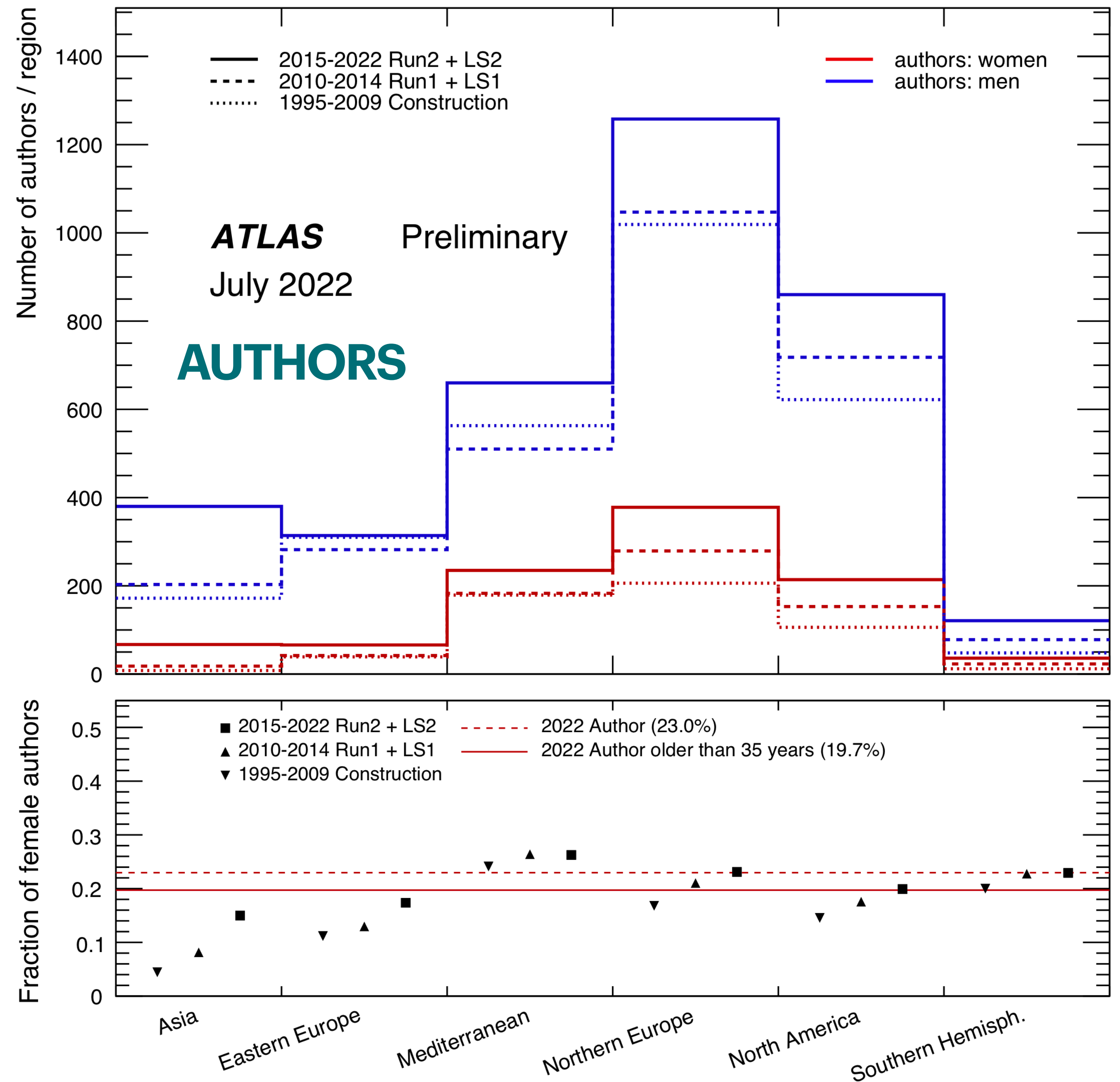


REGIONS

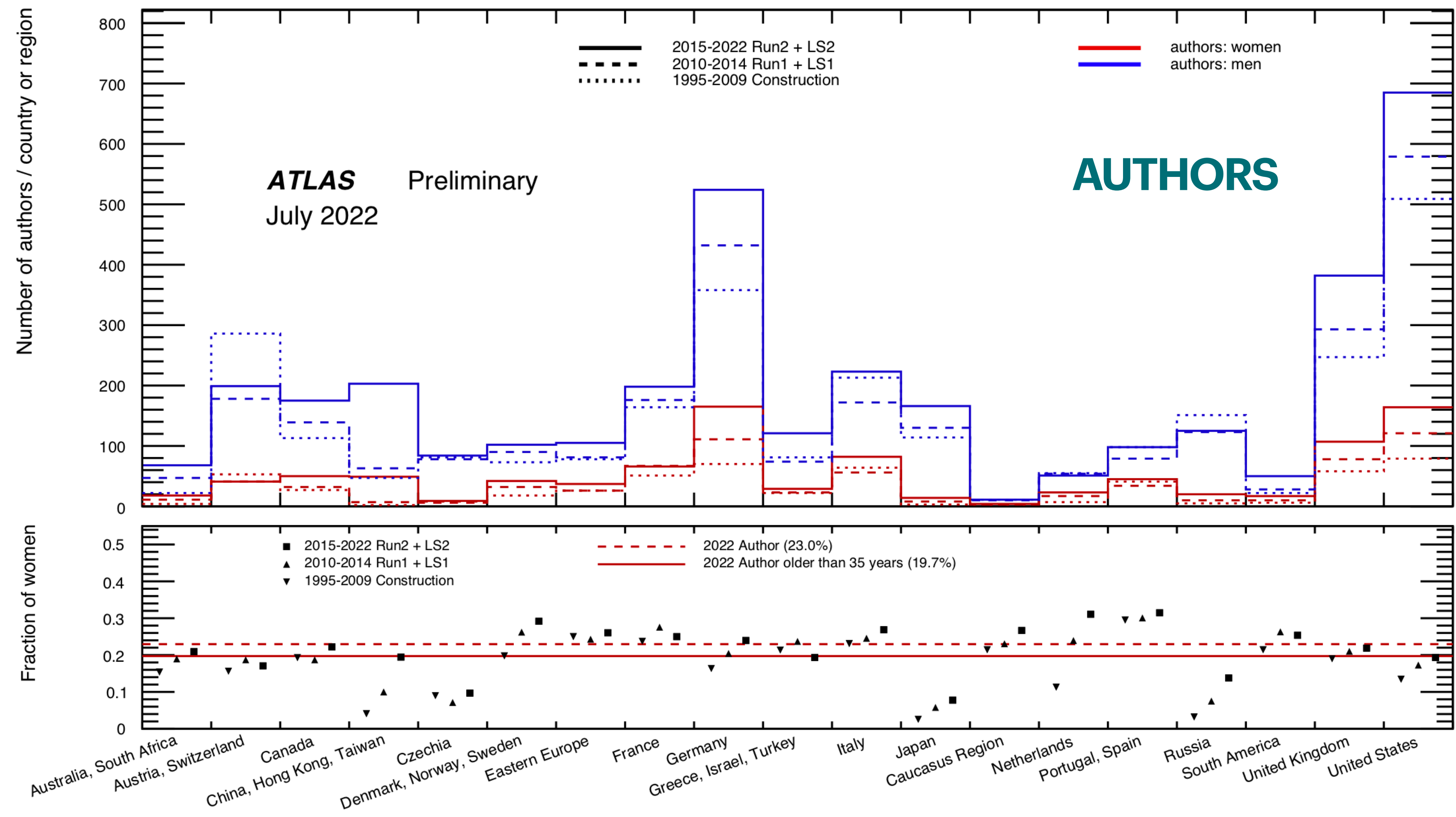
AUTHORS BY HOME INSTITUTION



- **Asia:** Armenia, Azerbaijan, China, Georgia, Hong Kong, Japan, Taiwan
- **Eastern Europe:** Belarus, Czechia, Poland, Romania, Russia, 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



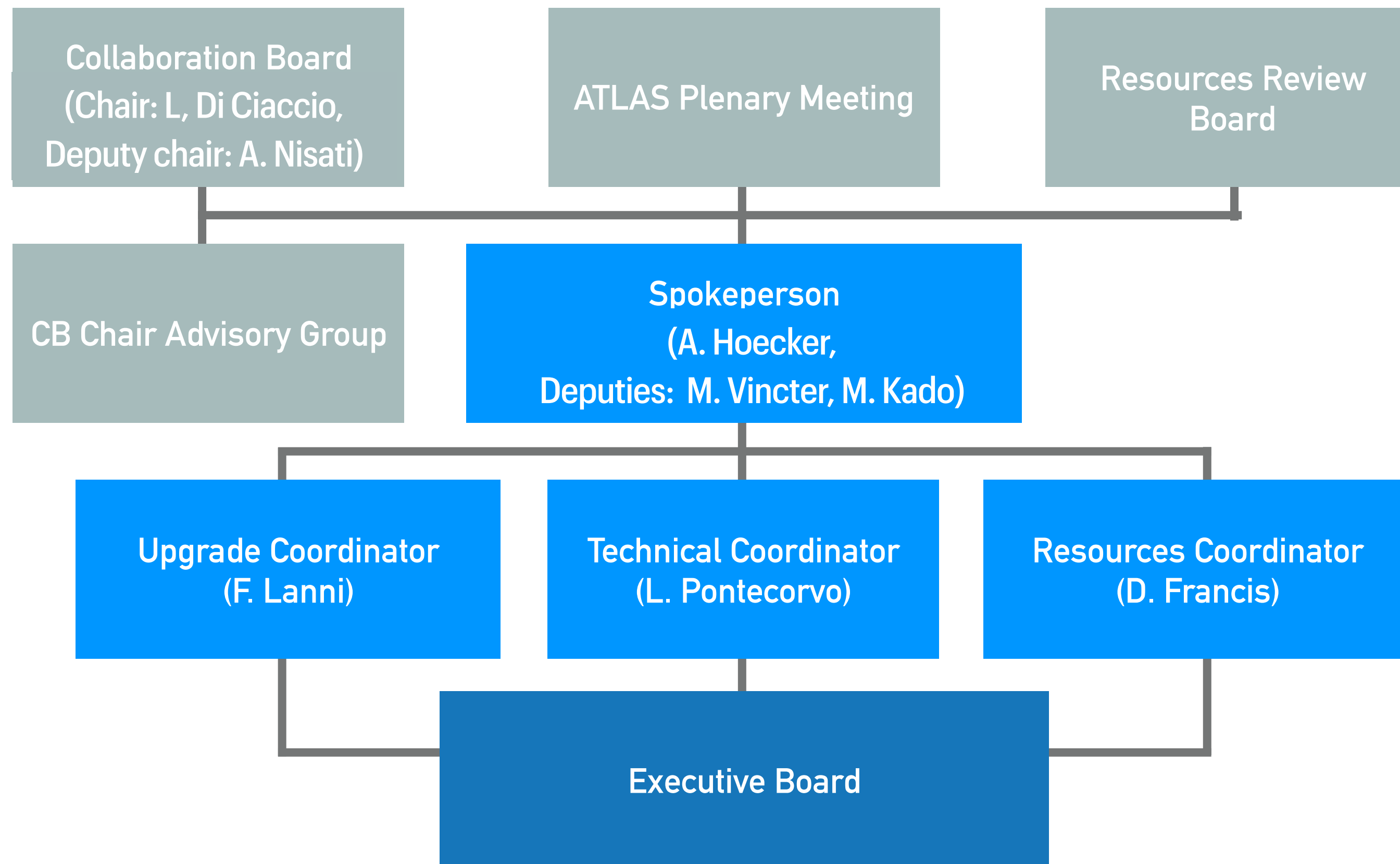
AUTHORS BY COUNTRY (GROUPING)



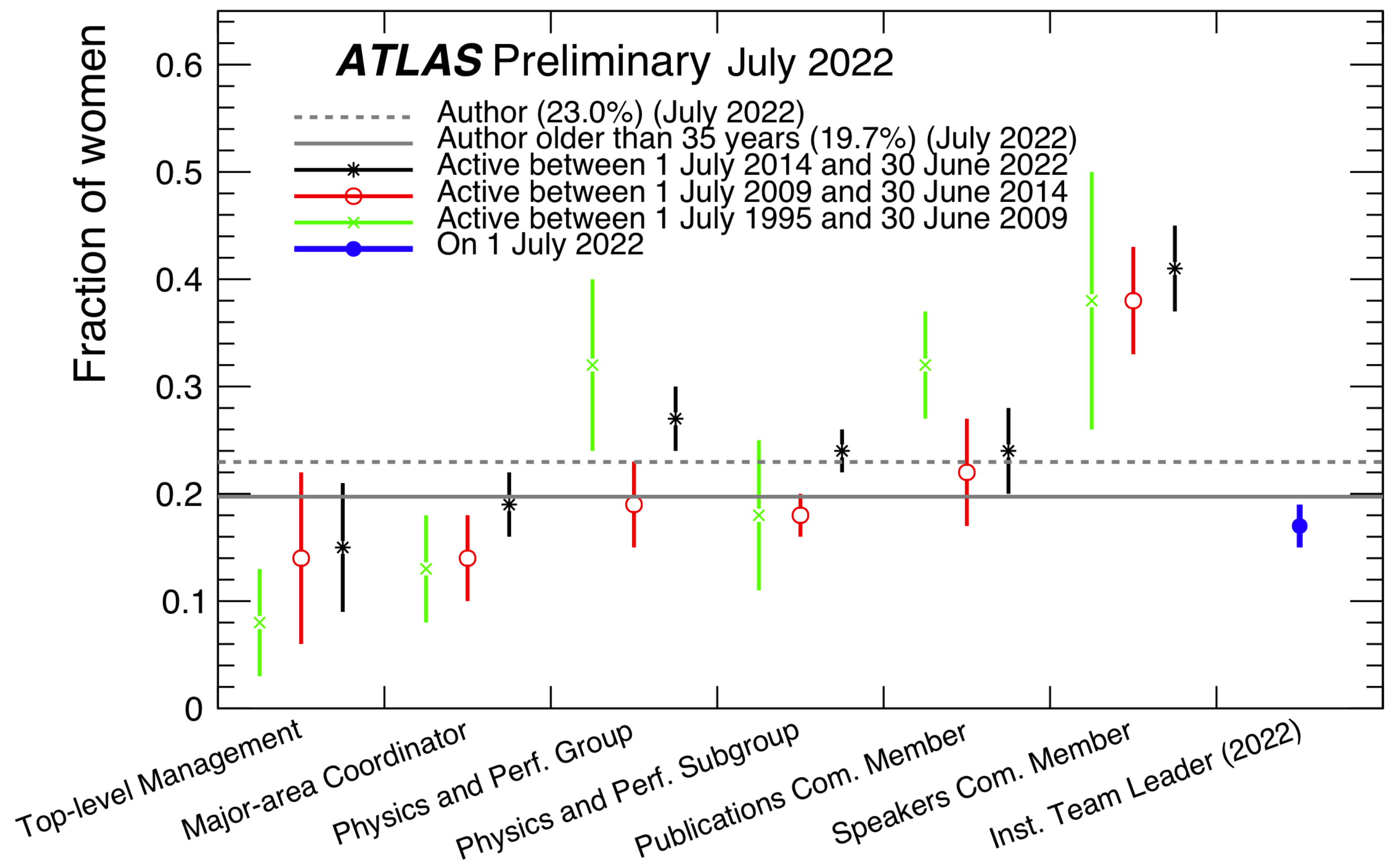
A woman with short dark hair, wearing a blue blazer, is shown in profile from the chest up, speaking at a wooden podium. Her hands are clasped in front of her. Two microphones are positioned in front of her. The background is blurred, showing warm stage lighting and a green plant. The word "LEADERSHIP" is overlaid in large, white, bold, sans-serif capital letters on a semi-transparent dark rectangular background.

LEADERSHIP

TOP LEVEL MANAGEMENT

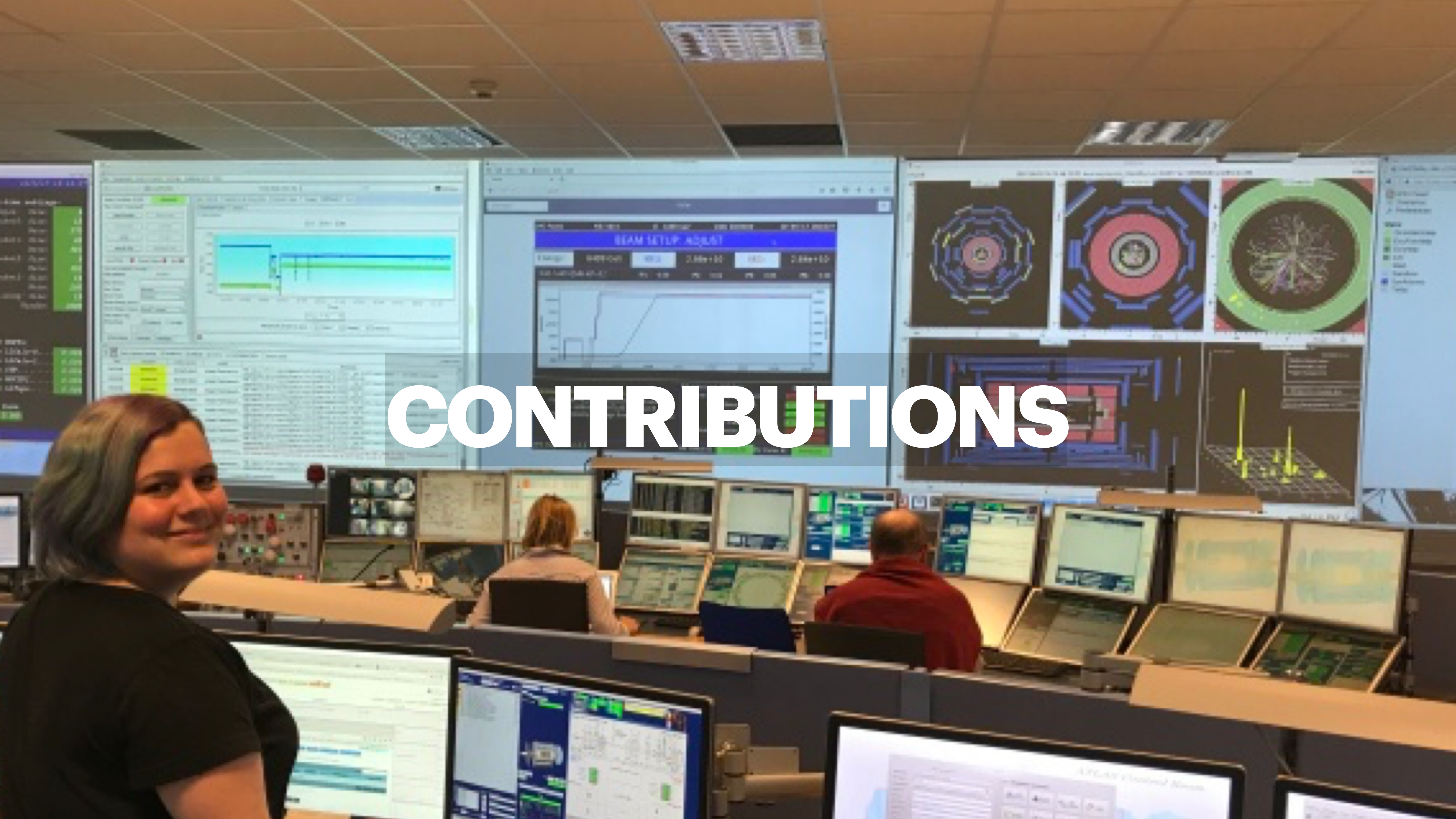


FRACTION OF WOMEN IN LEADERSHIP ROLES

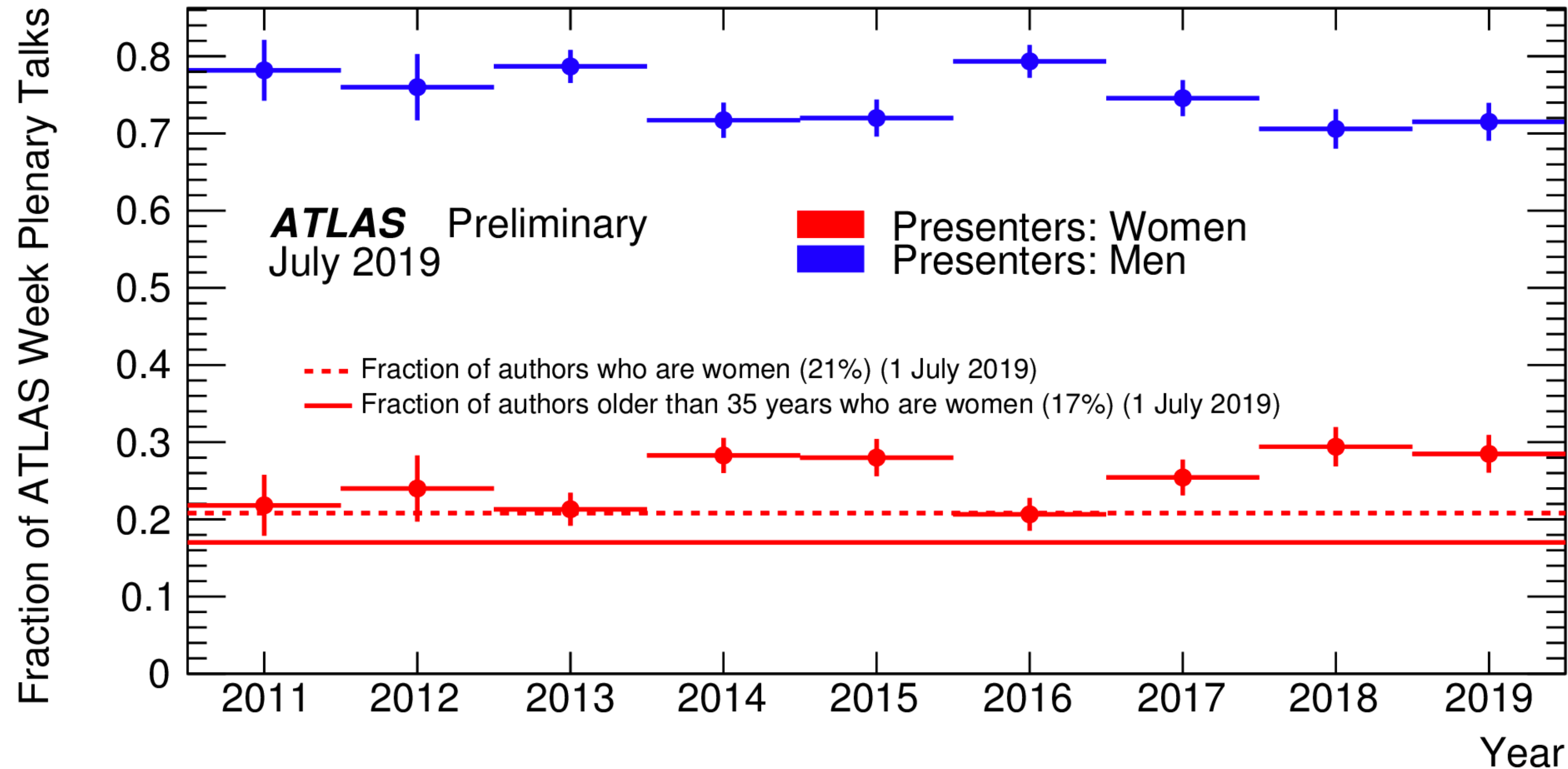


- Top level management: spokesperson, 2 deputies; technical, resource, upgrade coordinator; 2y term
- Major area coordinators: ~16; 2y term
- Physics & performance group: 18 group leaders, 2 per group; 2y term
- Physics & performance subgroup: ~2 conveners per subgroup; ~2y term
- Publications Committee: 12 members, 2y term
- Speakers Committee: 15 members, 3y term.
- Institution Team Leader: 182 ATLAS member institutions Chosen by institutions

CONTRIBUTIONS



ATLAS WEEK PLENARY TALKS



- **ATLAS week takes place 3 x year - 2 at CERN, 1 outside CERN**
- **All of the collaboration are invited - good forum for visibility**
- **Fraction of contributions made by women is greater than fraction of women authors.**

Because names of people in the Indico system can not be linked to entries in the CERN HR database, for this plot, gender is derived from first name using <http://genderize.io>

CLOSING REMARKS



- ♦ ATLAS is large, and diverse:
 - ♦ Both by necessity, and by choice.
- ♦ The collaboration has committed to being inclusive and diverse.
- ♦ Our collaboration is working to progress diversity and inclusion.
- ♦ Positions of leadership are broadly reflective of our gender demographics.
- ♦ We are constantly working to improve our environment.

BACKUP

LINKS

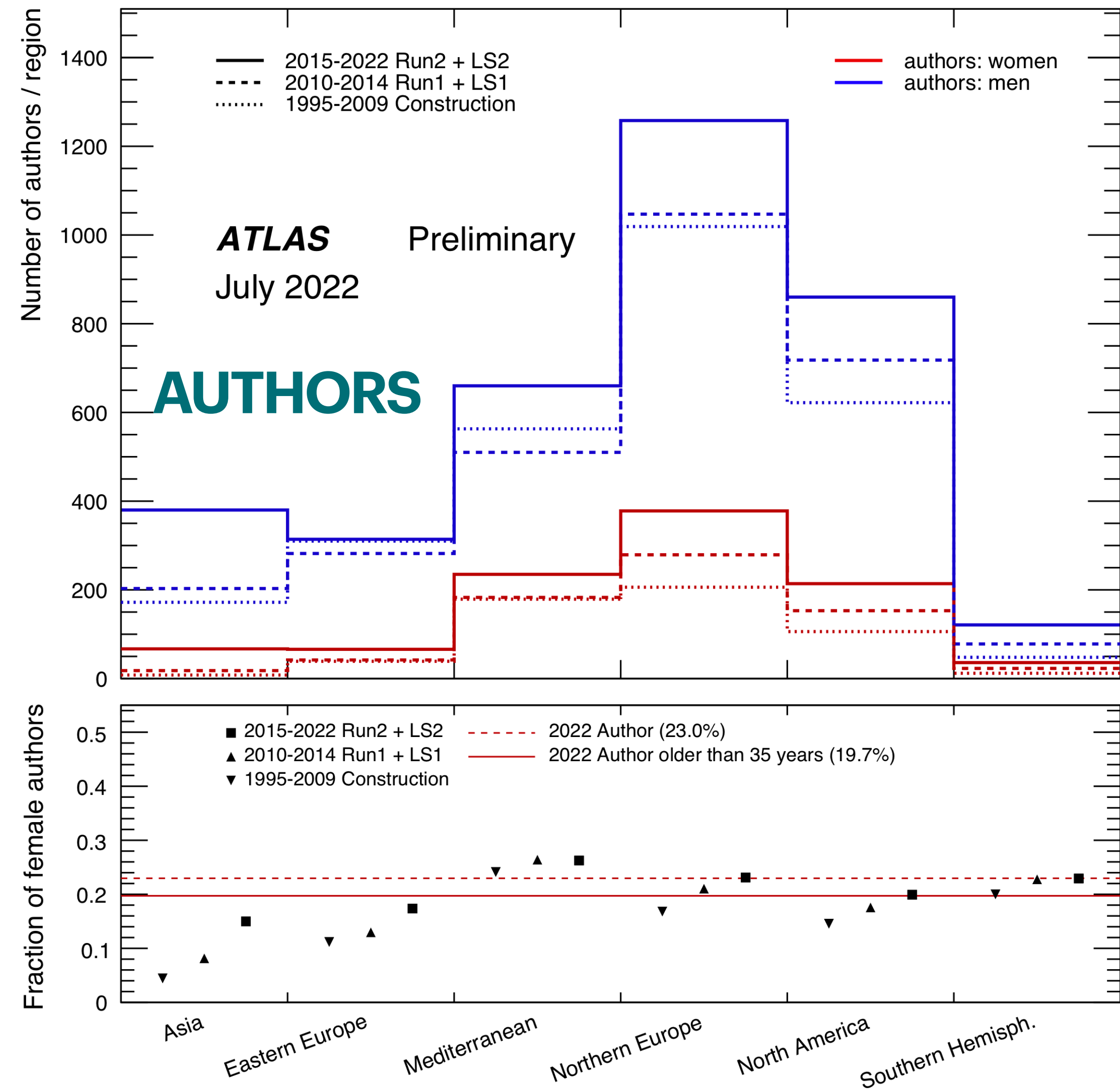
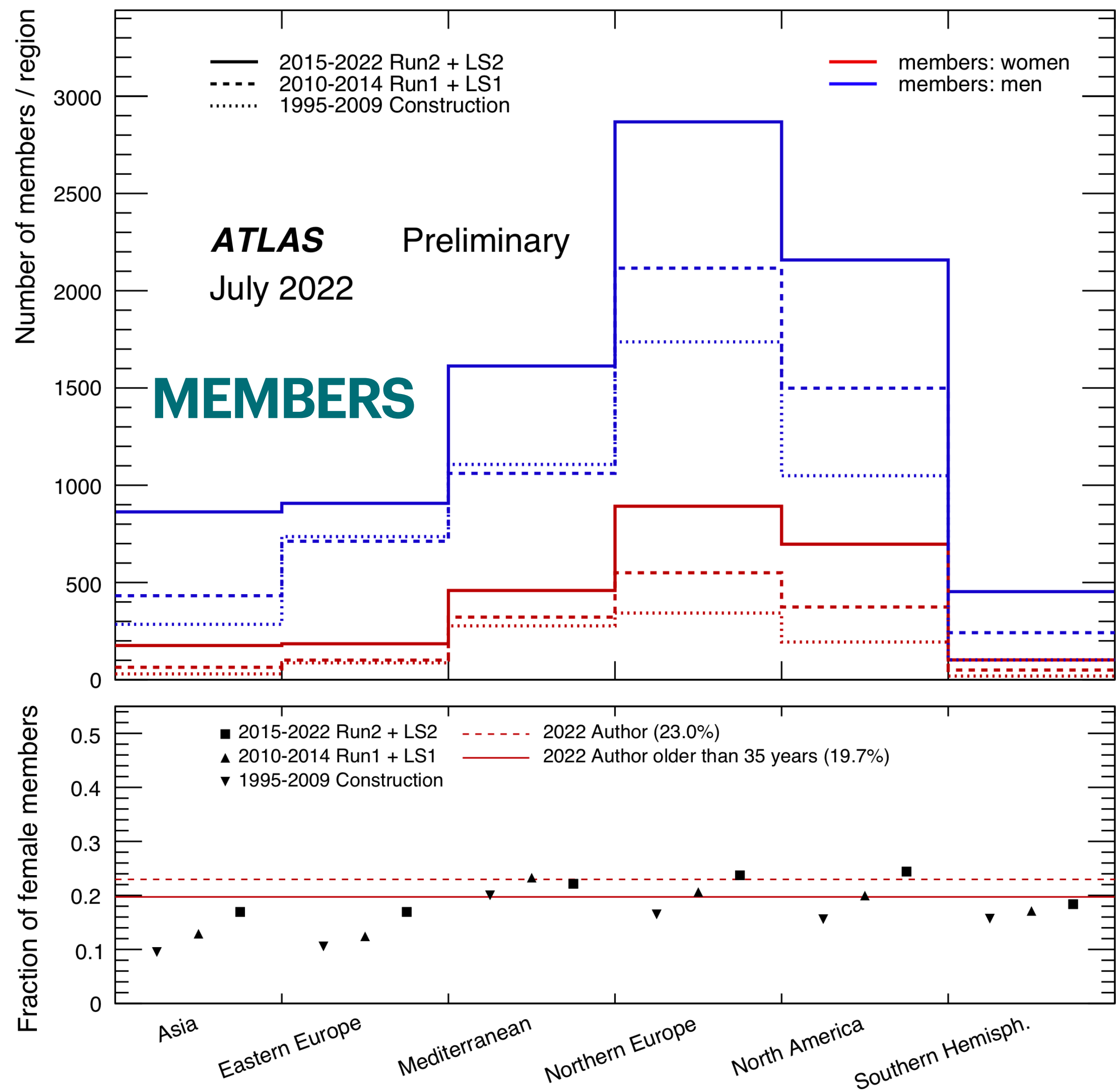
ATLAS: atlas.cern

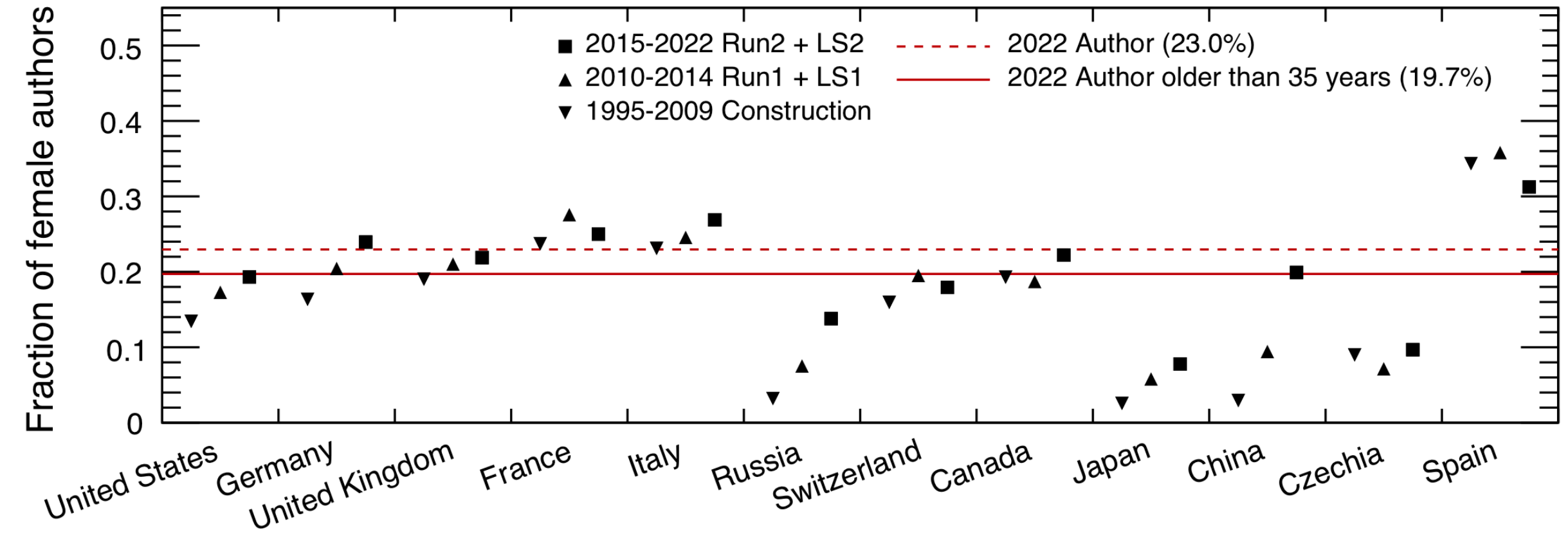
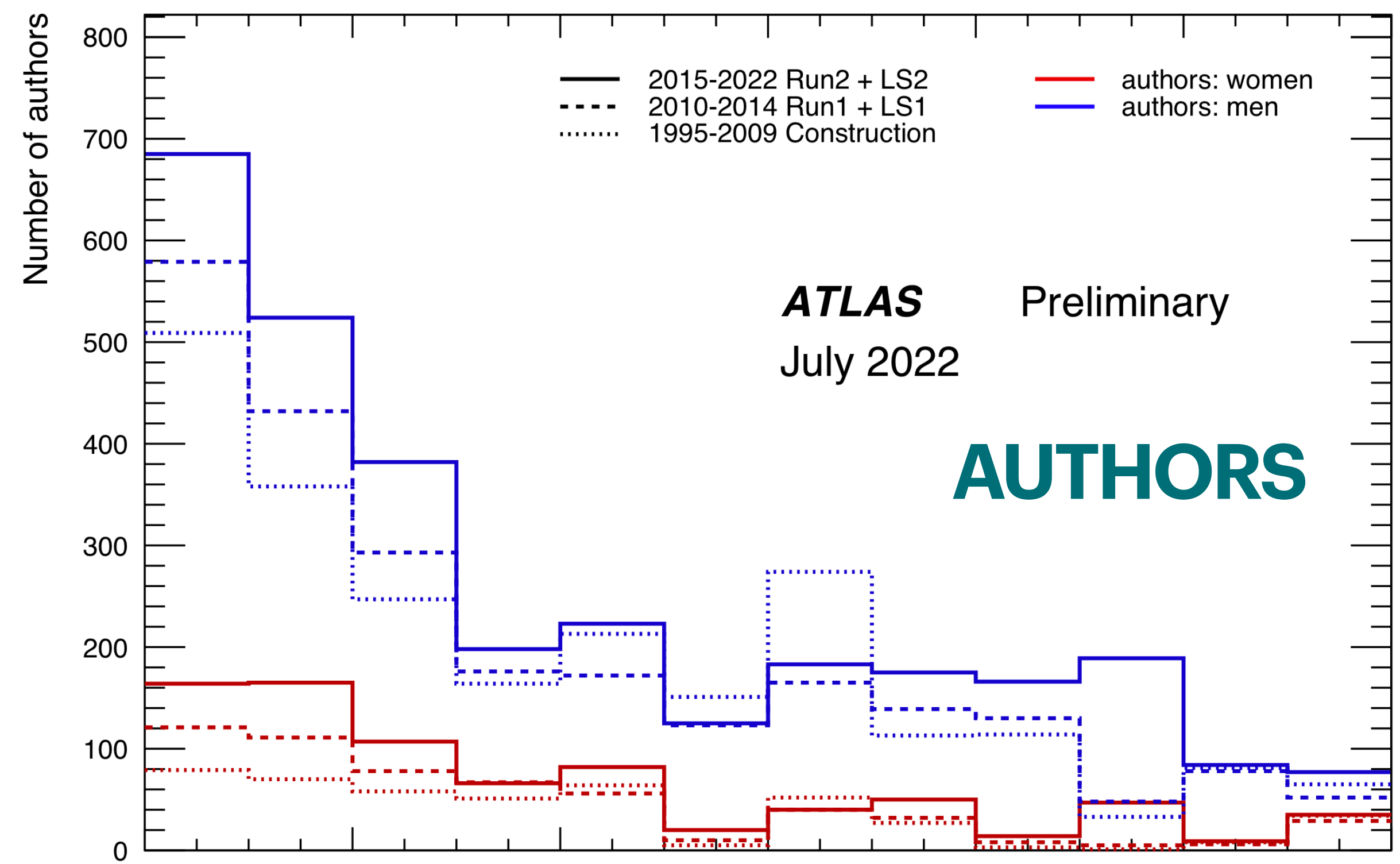
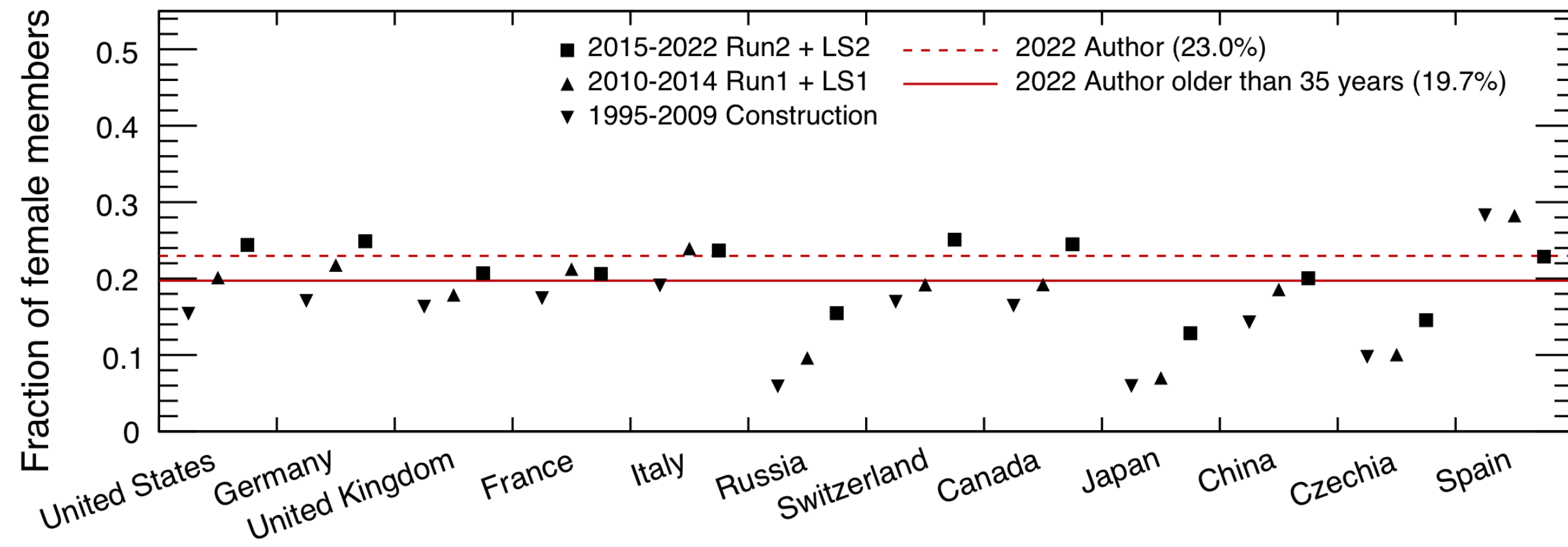
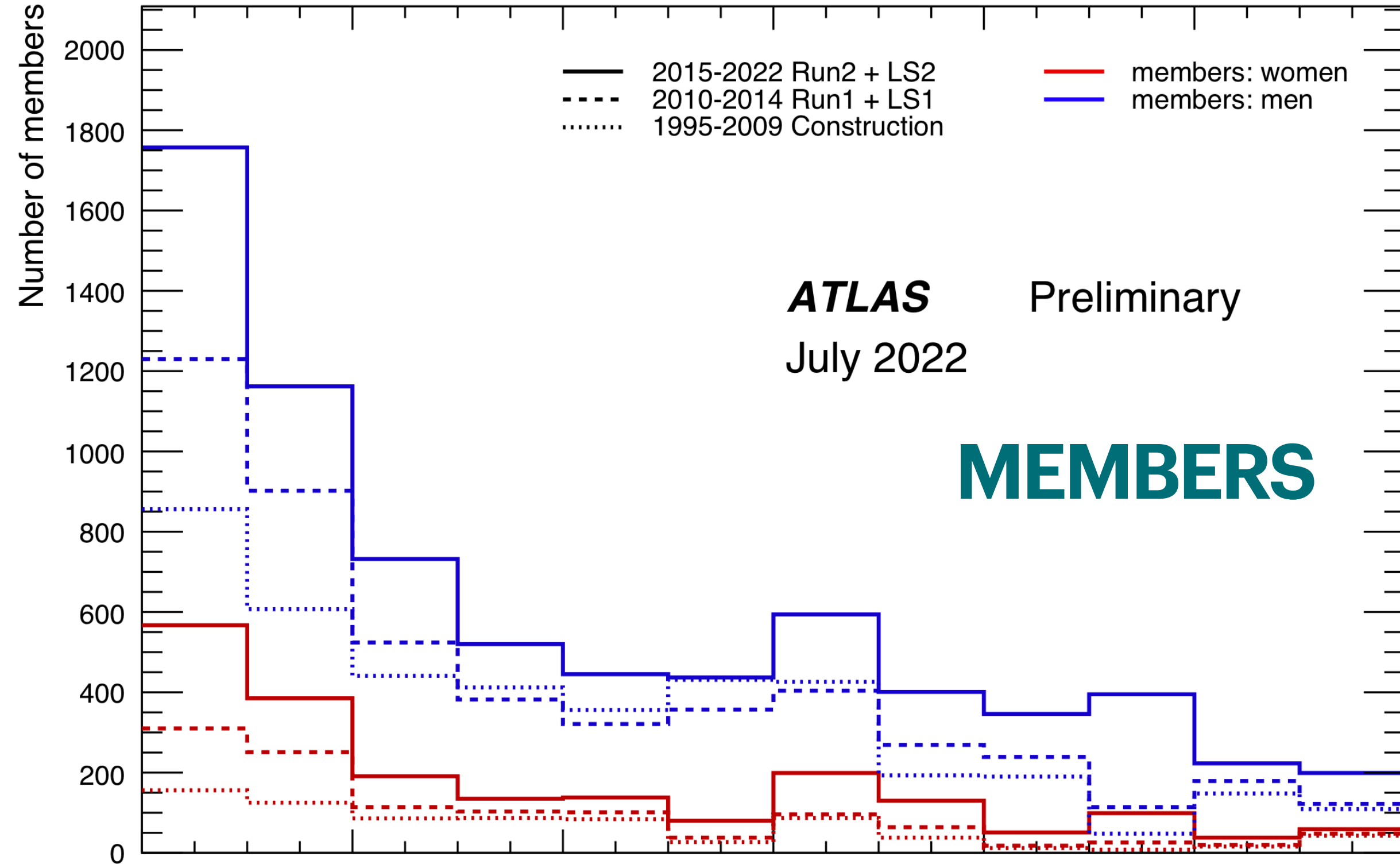
CERN Mission: <https://home.cern/about/who-we-are/our-mission>

CERN code of conduct: <https://hr.web.cern.ch/codeofconduct>

CERN 25 by '25: <https://diversity-and-inclusion.web.cern.ch/2021/04/25-25-journey>

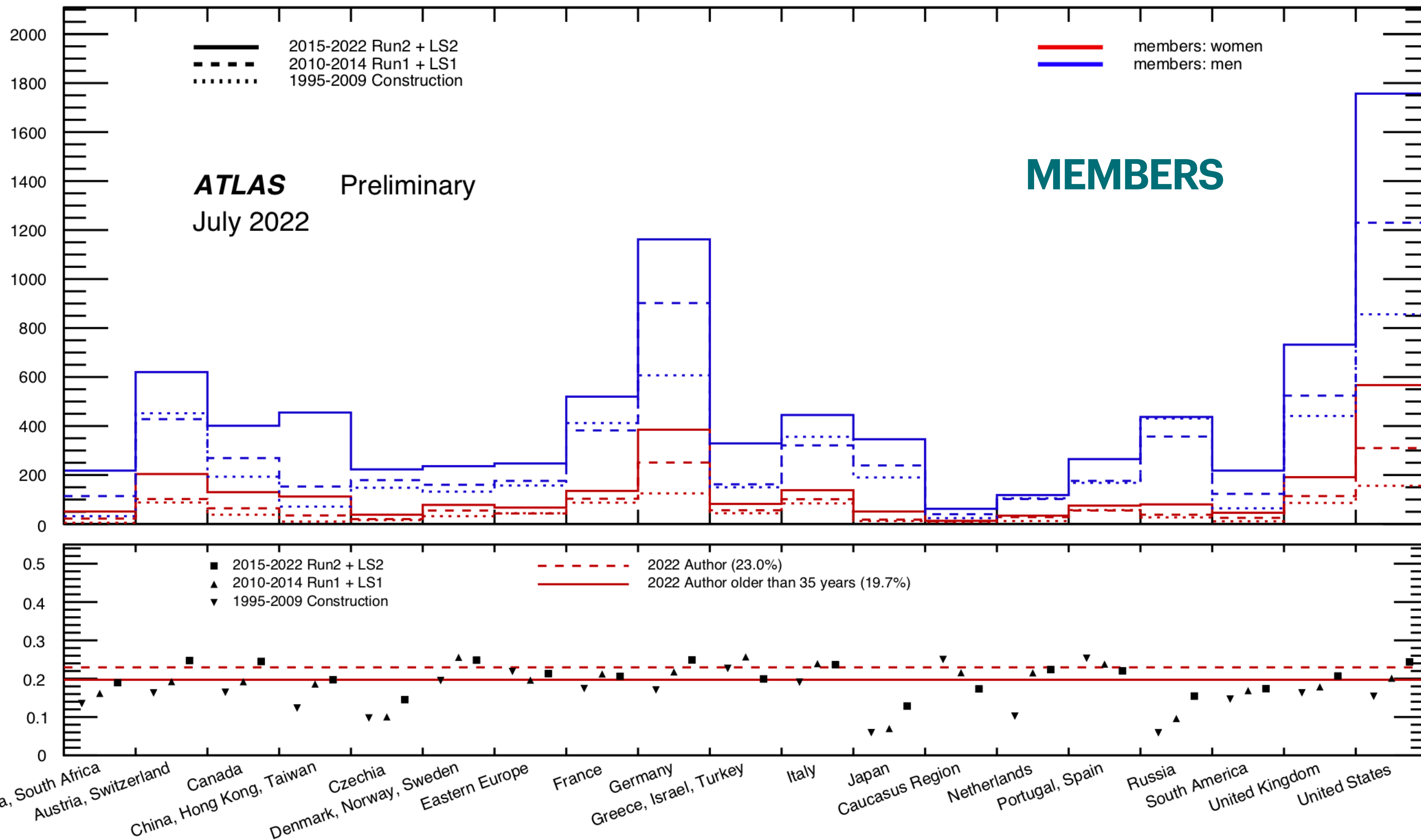
ATLAS Membership Gender & Geographic Diversity: ATL-COM-OREACH-2022-018





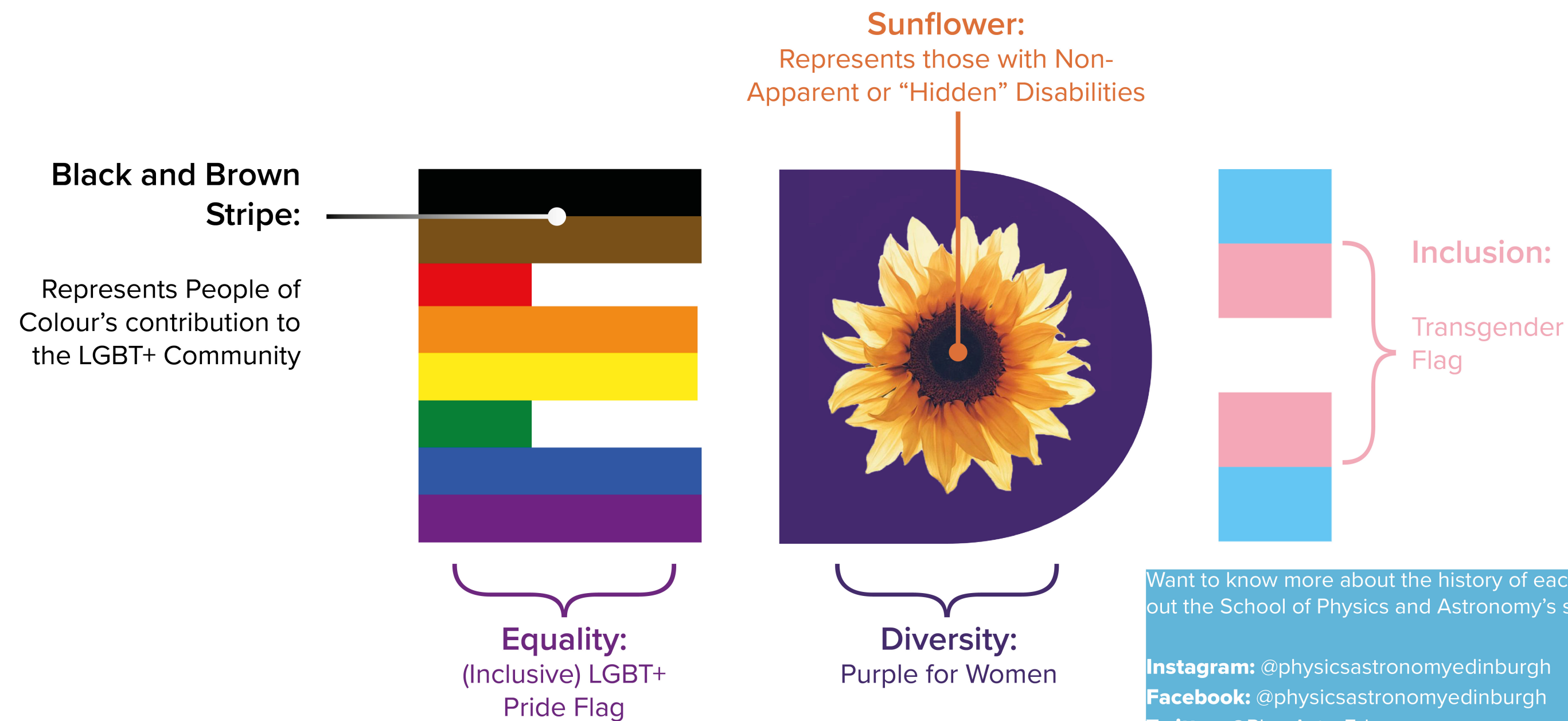
Number of members / country or region

Fraction of female members



EDI @ EDINBURGH PHYSICS

A Visual Guide to the New Equality, Diversity, and Inclusion Logo:



THE UNIVERSITY of EDINBURGH
School of Physics
& Astronomy



Equality, Diversity,
and Inclusion
ph.ed.ac.uk/edi

IOP

Institute of Physics
Juno Champion



Current ATLAS Management



Andreas Hoecker

Spokesperson 2021-2023, Deputy 2017-2021



Marumi Kado

Deputy Spokesperson 2021-2023



Manuella Vinciter

Deputy Spokesperson 2019-2023



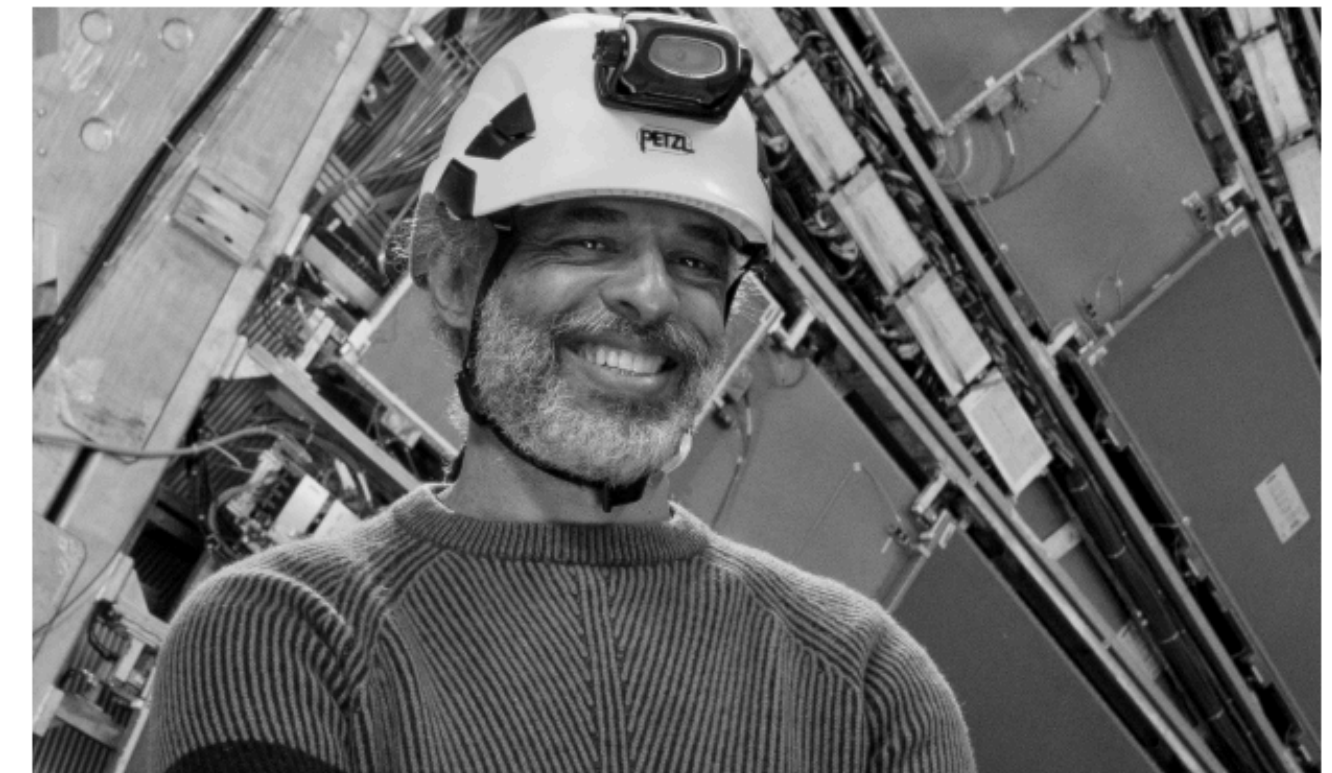
Francesco Lanni

Upgrade Coordinator 2019-2023



Ludovico Pontecorvo

Technical Coordinator 2015-2023



David Francis

Resource Coordinator 2019-2023

The ATLAS Community

- The ATLAS Collaboration is made up of diverse members from around the globe with different age, gender, sexual orientation, gender identity, culture, physical ability, ethnicity, appearance, education or religious background. Our goal is to keep ours a positive and inclusive community.
- We follow the [CERN code of conduct](#). This means that we abstain from and actively discourage all forms of harassment as well as verbal, non-verbal, written or physical abuse. So, for example, sexual language and imagery, sexist, racist, or otherwise exclusionary jokes are not appropriate.
- We welcome those new to the Collaboration, and realize that including people with a variety of backgrounds, and opinions eg. on technologies or analysis strategies, will only serve to enrich our community
- ***Throughout the week, we welcome questions, which should be asked and answered respectfully, and paying particular attention to those new to the Collaboration. We want all participants to be able to express their opinions freely.***
- We ask that all Collaboration members follow these principles and have an enjoyable and productive ATLAS week!

