



Diversity in Collaborations

Diversity Working Group

P. Conde Muino, J. J. Gaardhøje, A. Haungs, K. Henjes-Kunst, N. Kalantar-Nayestanaki, F. Moglia, T. Montarulli, N. Pastrone, J. Wambach

Ex-officio:

J. D'Hondt (previous ECFA Chair), K. Jakobs (ECFA Chair), M. Lewitowicz (NUPECC Chair)

APPEC/ECFA/NUPECC

5/05/2022

Diversity Charter

History

- Joint working group between APPEC/ECFA/NuPECC to deliver
 - A Diversity Charter adequate for the three communities
 - Sign up plan
 - Follow up plan (monitoring)

Members of the working group

From APPEC:

- Initially: T. Montaruli, F. Moglia
- Now:
 - Andreas Haungs
 - Katharina Henjes-Kunst

From ECFA:

- Patricia Conde Muíño
- Nadia Pastrone

From NuPECC:

- Jens Jørgen Gaardhøje
- Nasser Kalantar-Nayestanaki
- Jochen Wambach

Ex-officio:

M. Lewitowicz (NuPPEC Chair), K. Jakobs (ECFA Chair), J. D'Hondt (previous ECFA Chair)

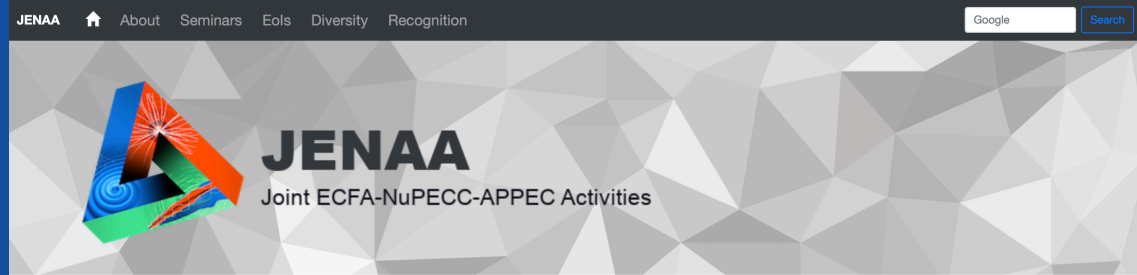
Diversity definition

1 Definition of Diversity

The joint Diversity Charter proposed by the consortia APPEC [1], ECFA [2] and NuPECC [3] has Diversity as its principle, understood as the **acknowledgement, respect and appreciation** of the reality that people differ in many ways, visible or invisible, mainly in **age, gender and sexual orientation, national and ethnic origin, civil status and familial situation, religious convictions, political and philosophical opinions, and physical ability.**

Diversity charter

- Diversity as a motor to boost productivity and innovation, fight prejudice and discrimination
- Focus on Collaborations, Conferences and organisations
- [Diversity Charter web page](#)



Diversity Working Group

ECFA, NuPECC and APPEC recognise the importance of diversity as a motor to boost productivity and innovation, fight prejudice and discrimination and contribute to the improvement of social and economical standards.

The three organisations joined together to propose a [Diversity Charter](#) to be signed by research organisations, collaborations and conferences within the fields of Particle Physics, Nuclear Physics and Astroparticle Physics, who value diversity and commit to promote equal opportunities at all levels.

In a first phase, diversity within the different signatories will be [monitored](#). To simplify the task of monitoring for all partners involved, a survey has been made available to be filled out on a voluntary and anonymous basis by affiliated people and participants to the signatories. Initially, just a few basic variables are proposed for data collection in order to simplify privacy issues. If any signatory entity prefers to monitor the data itself, it is free to use any other method and just communicate the results of its analysis.

Signatories of the Diversity Charter

From ECFA:

- Collaborations: ATLAS, CMS, LHCb, NA61/SHINE, CALICE
- Conferences: HEP-EPS2021, PANIC 2021, ICRC 2021,

From NuPECC:

- Collaborations: AGATA, ALICE, LNL, n_ToF, NUSTAR, GANIL, PANDA, ISOLDE
- Conferences: 13th ISSNS, SSNET 2020, ICACS-29, SHIM-11, QM 2022, SSP 2022, QNP2022, NPA-X, INPC 2022, TQPC, PSI 2022, DREB 2022

From APPEC:

- Collaborations:
- Conferences:

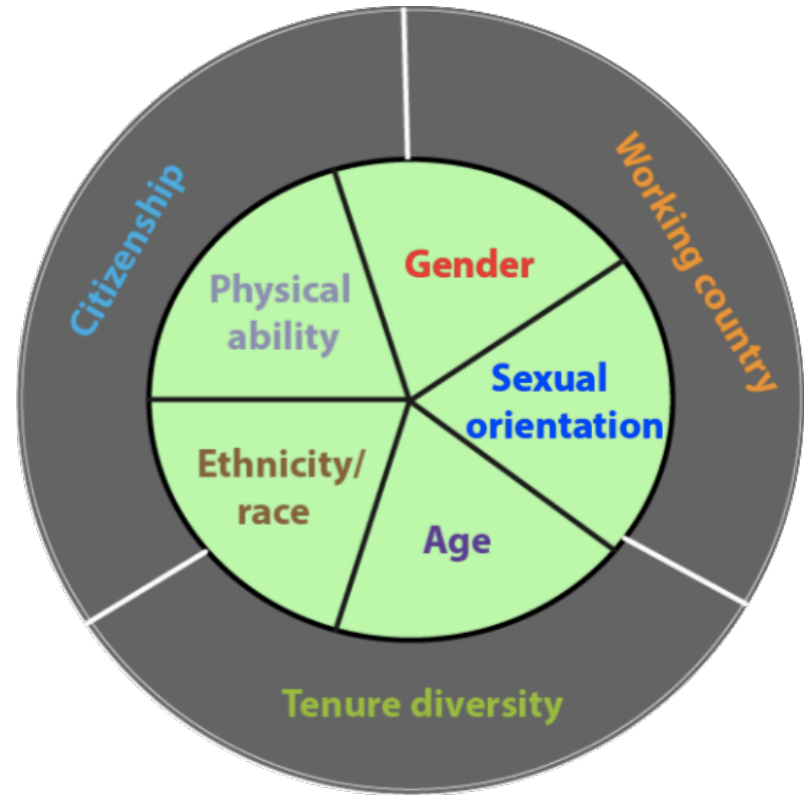


Commitment of signatory entities

- Endorsing an enabling environment for the understanding, respect and promotion of all diversity items and at all levels of the entity, from top management to each and every other hierarchical level;
- Balancing diversity composition of coordinating committees, leadership of working packages of Collaborations and organising and advisory committees of conferences;
- Developing an organisational culture based on mutual respect, recognition and appreciation of individual differences and talents;
- Monitoring, analysing, evaluating and sharing the five variables
- Encouraging the creation of work teams based on the principles and values of the Charter
- Promoting understanding, learning about other practices, sharing of experiences among the various signatory organisations, and wider public initiatives.

Monitoring Diversity

- Monitorable variables:
 - Age, gender, career level, working country, citizenship
- Non-monitorable variables:
 - Sexual orientation, physical ability, race/ethnicity
- Prepared a survey to collect information from the Diversity Charter signatories



Timeline

March 2019
First draft of
Diversity Charter

Summer 2020
First distribution
to collaborations

Summer 2021
Distributed to
collaborations and
conferences

JENAS 22,
Results
presentation

Sep 2018,
Diversity Charter
group formed

JENAS 2019
Charter presentation
First survey distribution

Addressed issues on
data privacy

Collecting answers

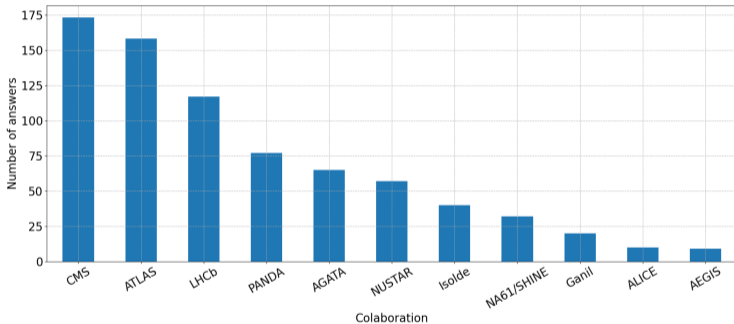


Survey

Questions concerned:

- Gender
- Age group (20-30, 31-40, 41-50, 51-60, > 60)
- Tenure position: tenure, not tenure, tenure track
- Responsibility within the collaboration (highest level)
 - Member of the collaboration (without specific management task)
 - L0 management position such as spokesperson, steering board, ...
 - L1 management position such as project leader, activity coordinator (physics coordinator, software coordinator, ...)
 - L2 management position such as analysis group coordinator, group coordinator, ...
 - Official non-managerial role
- Country of origin
- Country of work (affiliation)

Overall view (responses per collaboration)

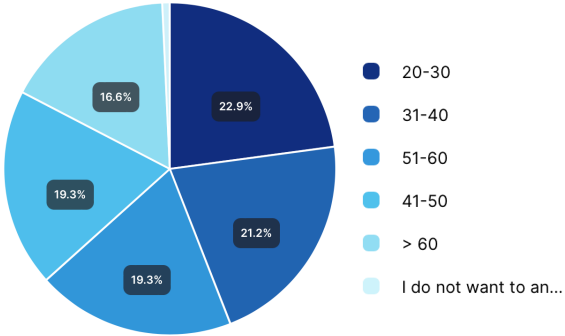


Overall, between 5%-10% of collaboration members responded the survey

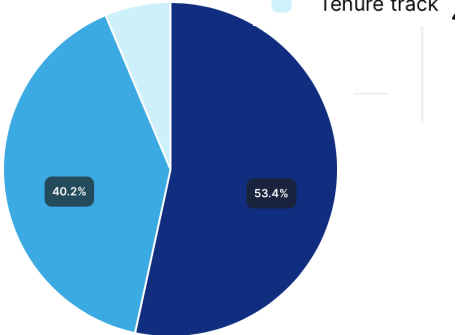
Respondents demographics

Overall distribution of the number of responses per age/career level/gender group

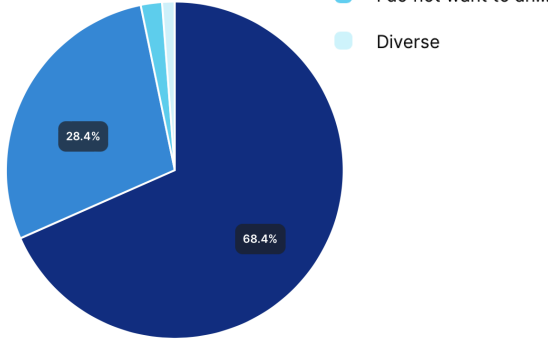
6. Age group



5. Career level



4. Gender



28% women, all age groups represented

Comments

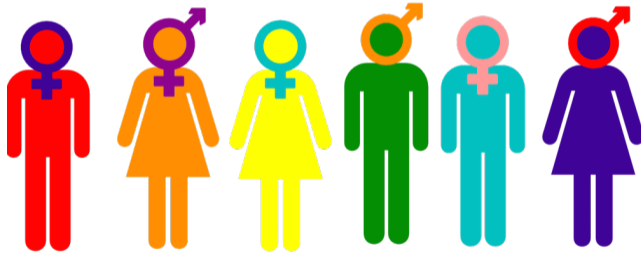
In order to compare the number of responsibility positions versus gender, country of work and country of origin, the percentage of members with/without managerial role was calculated per gender/country

- For each managerial role, percentages per gender/country are directly comparable
- For each gender/country the fractions of collaboration member, L0, L1 and L2 coordination positions add up to 100%.

In what follows, grouping collaborations according to

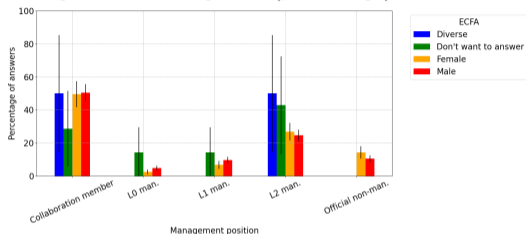
- ECFA: ATLAS, CMS, LHCb, NA61/SHINE, CALICE,...
- NuPECC: AEGIS, AGATA, ALICE, GANIL, HADES, HISPEC/DESPEC, IDS, IDIMA, ISOLDE, NUSTAR, nTOF, R3B, ...

Gender

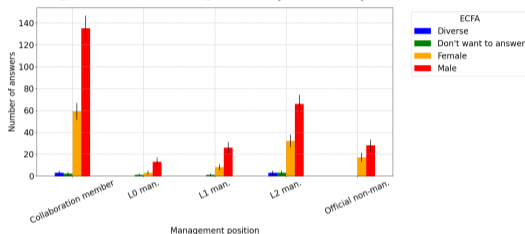


ECFA gender diversity overview

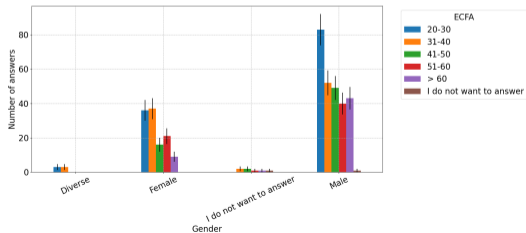
Management role vs gender (percentage)



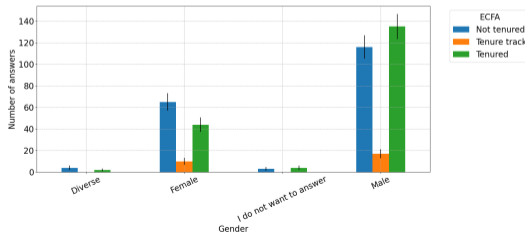
Management role vs gender (absolute)



Age distribuon per gender category (absolute)

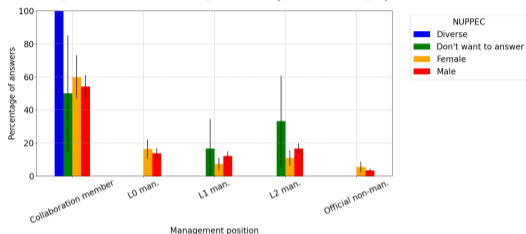


Tenure status per gender category (absolute)

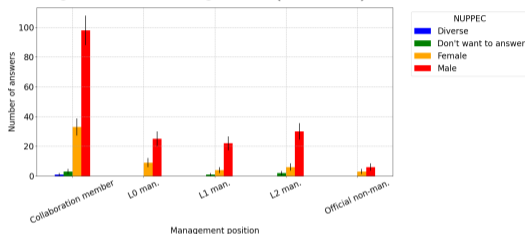


NuPECC gender diversity overview

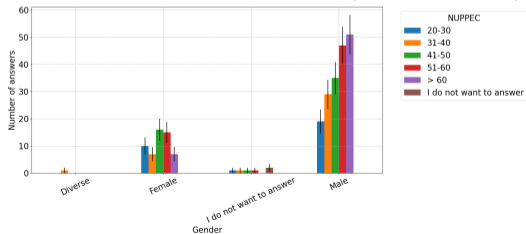
Management role vs gender (percentage)



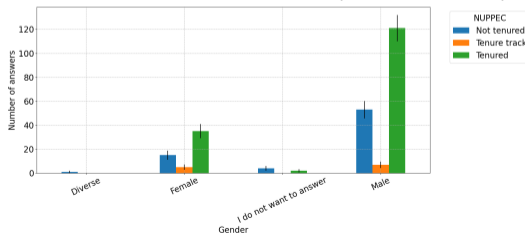
Management role vs gender (absolute)



Age distribuon per gender category (absolute number)



Tenure status per gender category (absolute number)



Country of origin



Grouping of countries

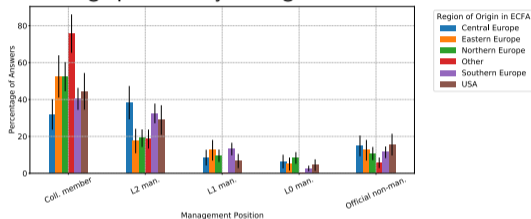
To ensure anonymity and ensure sufficient statistics countries have been grouped:

- CERN: special case, needs to be separated (high statistics, avoid biases in Switzerland)
(Only for country of work)
- Northern Europe: Germany, UK, Netherlands, Denmark, Norway, Sweden, Finland, Ireland, ...
- Central Europe: France, Belgium, Switzerland, Austria, ...
- Eastern Europe: Poland, Czech Republic, Hungary, Slovakia, Romania, ...
- Southern Europe: Spain, Portugal, Italy, Greece, Croatia, Serbia, Slovenia, ...
- USA
- Other: China, Japan, Israel, South Africa, Turkey, Taiwan, Thailand, Costa Rica, ...

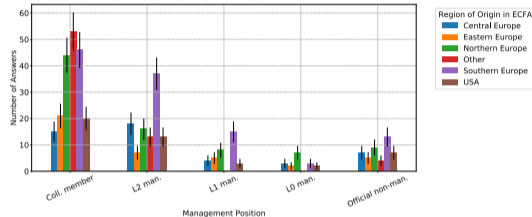
Same division used for ECFA and NuPECC

ECFA country of origin versus management position

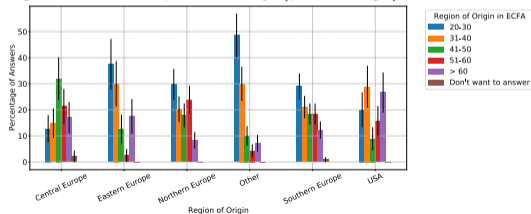
Percentage per country of origin



Absolute number of entries



Age distribution per country (percentage)

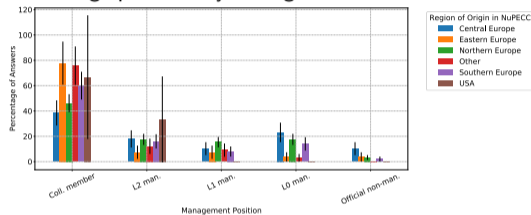


Apparent imbalance in country of origin: northern Europe, Eastern Europe and "others" have smaller fraction of coordination positions

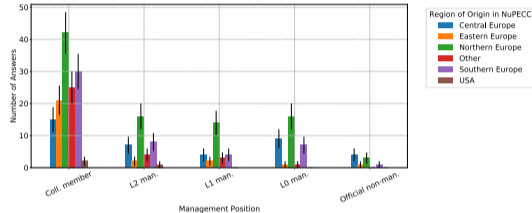
- But most answers in those countries came from younger collaboration members!
- Very different pattern with respect to other countries
- Not sufficient statistics to further subdivide categories by age

NuPECC country of origin versus management position

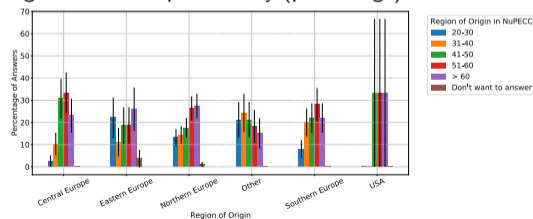
Percentage per country of origin



Absolute number of entries



Age distribution per country (percentage)

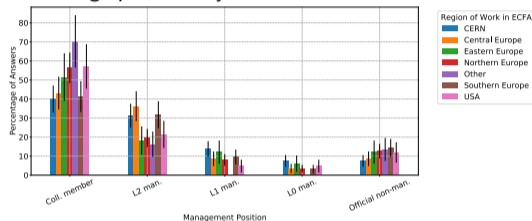


Country of work

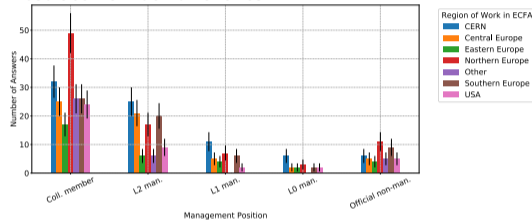


ECFA country of work versus management position

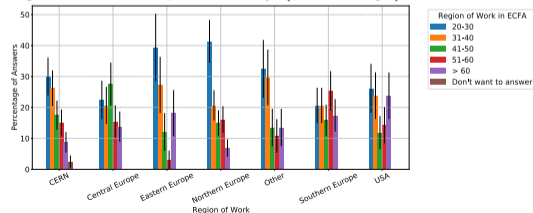
Percentage per country of work



Absolute number of entries

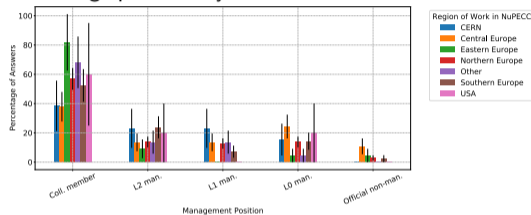


Age distribution per country (percentage)

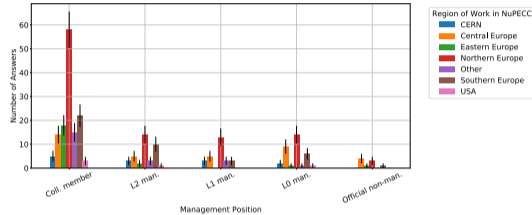


NuPECC country of work versus management position

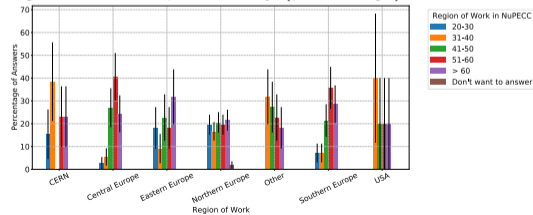
Percentage per country of work



Absolute number of entries



Age distribution per country (percentage)



Comments received

Few positive and encouraging comments thanking us for the initiative

Main concerns:

- I have some methodological hesitations with regards to the representativity of the survey
- Gender instead of sex might bias the results
- This survey is discriminatory against people who do not believe in gender as opposed to sex
- Stupid/useless questionnaire (~5 people)
- Concerns about privacy (~4 people)
- Management positions not clear (2 people)
- Should ask questions such as ethnicity, religion, sexual orientation, economic background, ... (4-5 comments)

Comments on the comments:

- Survey representativity: 5%-10% of the collaborations members responded, with some age biases in some countries, probably correlated (or anticorrelated) with the level of interest/concern with the topic
- In future could include questions on ethnicity, sexual orientation, economic background, ...
- Anonymity: as described in the introduction of the survey, sensitive data were treated according to the GDPR European law. The results have been anonymised by grouping categories such that individuals cannot be identified
- Initially focused in Europe, but survey could be distributed further

Summary and conclusions

- A survey was conducted within large international collaborations in the fields of APPEC/ECFA/NuPECC
- Around 5%-10% of the collaboration members answered
 - In some countries there is a strong bias in the age of the respondents
 - May suggests that this topic is more of a concern for the younger generation
- Within the statistics collected, the management positions within the collaborations:
 - do not appear to be biased by gender, reflecting the population in the collaboration.
 - they might be biased with respect to country of origin/work
 - We encourage collaborations to further look into this issue with full statistics (since many of them have the information available in their databases)

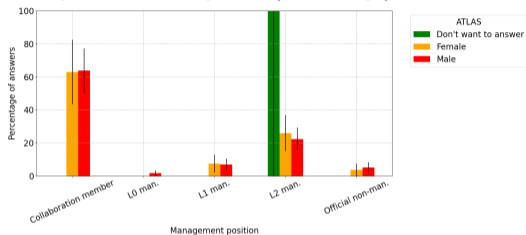
Acknowledgements

M. Barros and L. Carvalho for their help with the analysis software.

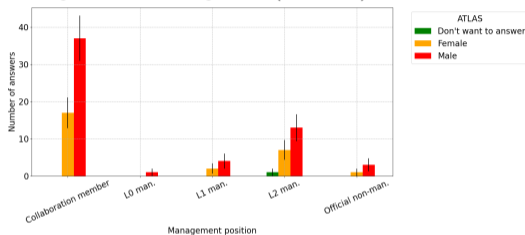
Backup

ATLAS gender diversity overview

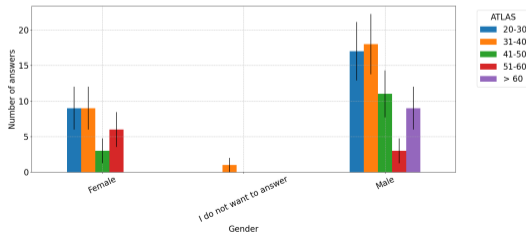
Management role vs gender (percentage)



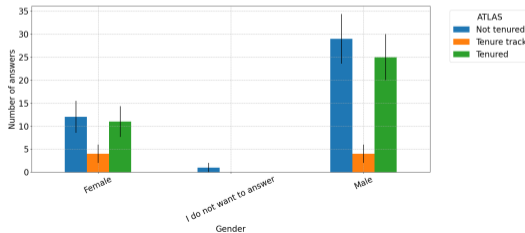
Management role vs gender (absolute)



Age distribuon per gender category (absolute number)

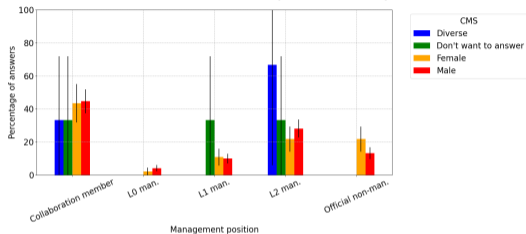


Tenure status per gender category (absolute number)

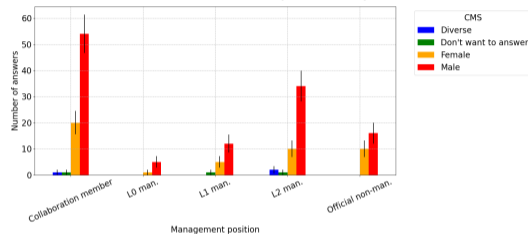


CMS gender diversity overview

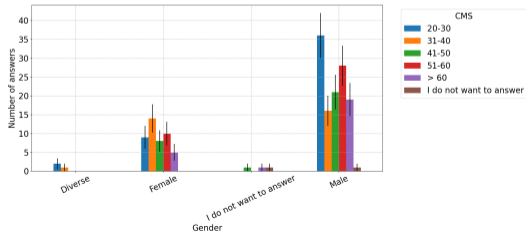
Management role vs gender (percentage)



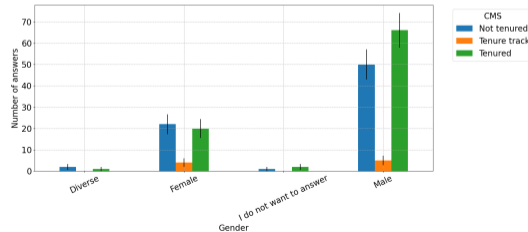
Management role vs gender (absolute)



Age distribuon per gender category (absolute number)

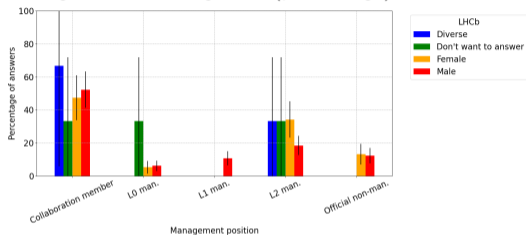


Tenure status per gender category (absolute number)

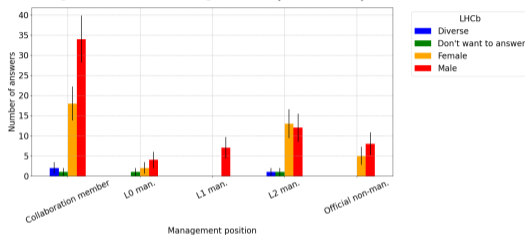


LHCb gender diversity overview

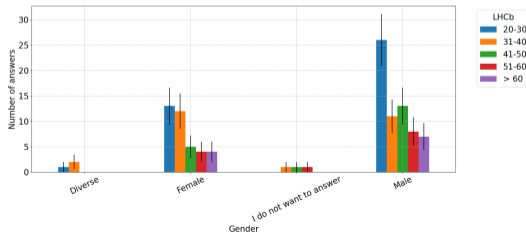
Management role vs gender (percentage)



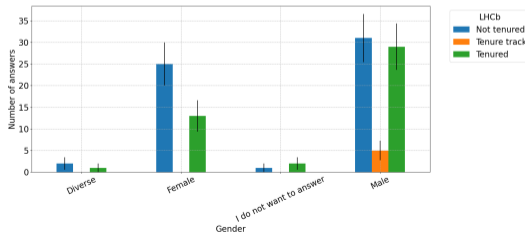
Management role vs gender (absolute)



Age distribuon per gender category (absolute number)

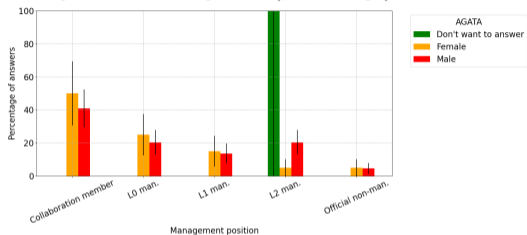


Tenure status per gender category (absolute number)

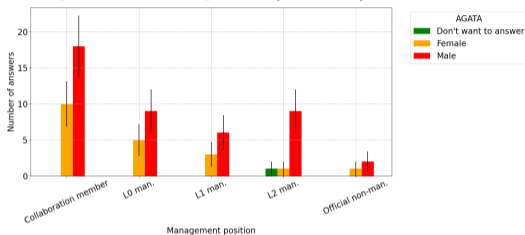


AGATA gender diversity overview

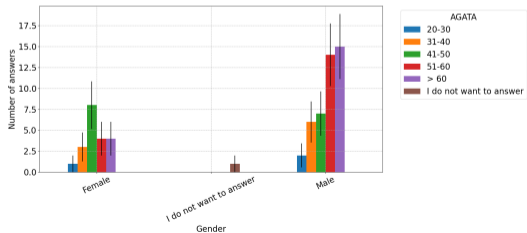
Management role vs gender (percentage)



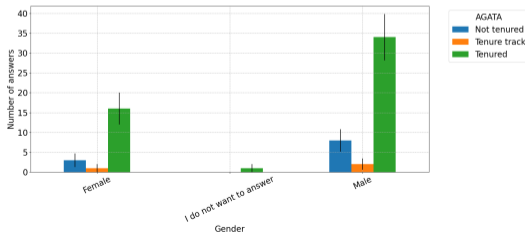
Management role vs gender (absolute)



Age distribuon per gender category (absolute number)

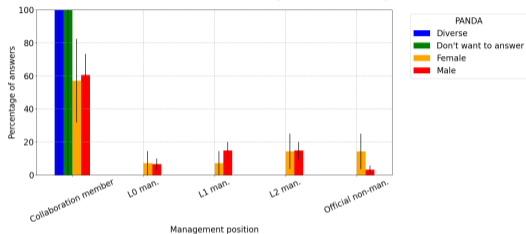


Tenure status per gender category (absolute number)

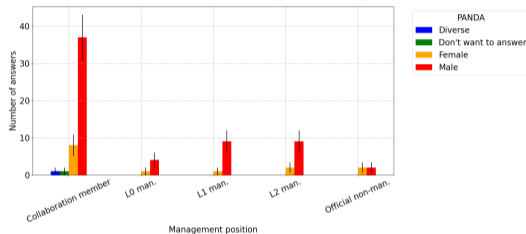


PANDA gender diversity overview

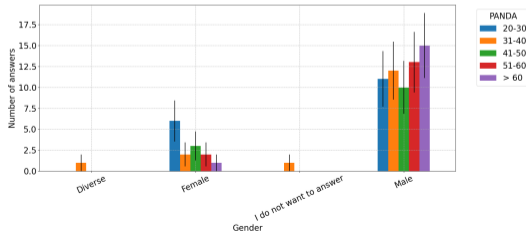
Management role vs gender (percentage)



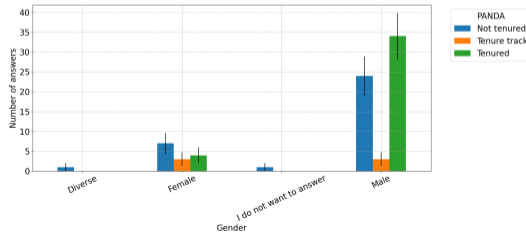
Management role vs gender (absolute)



Age distribuon per gender category (absolute number)

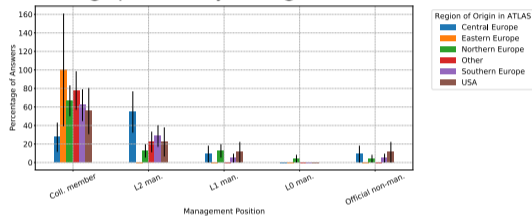


Tenure status per gender category (absolute number)

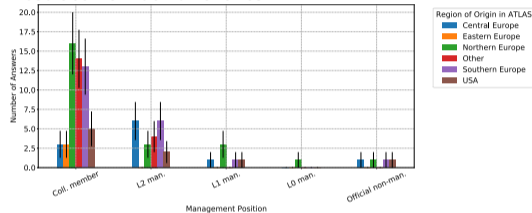


ATLAS country of origin versus management position

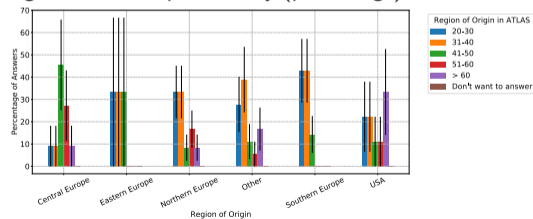
Percentage per country of origin



Absolute number of entries

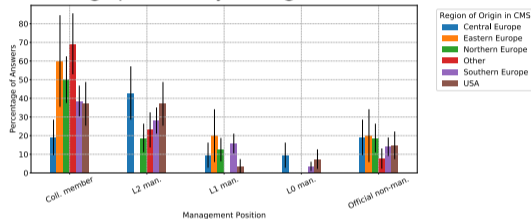


Age distribution per country (percentage)

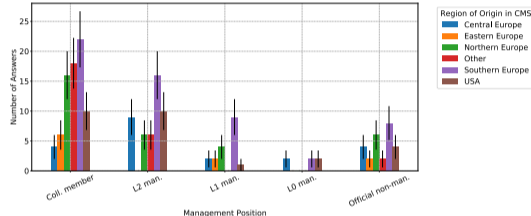


CMS country of origin versus management position

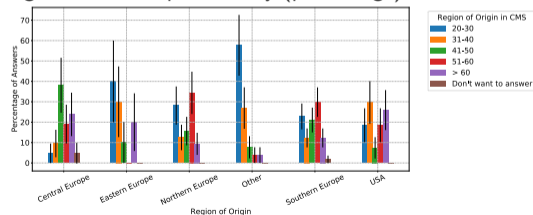
Percentage per country of origin



Absolute number of entries

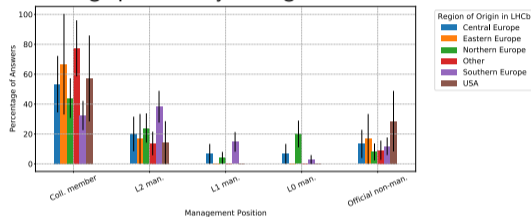


Age distribution per country (percentage)

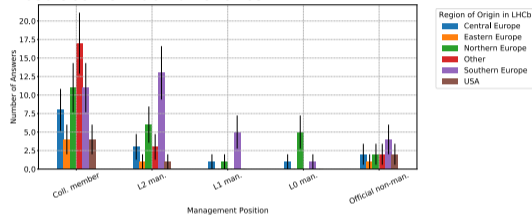


LHCb country of origin versus management position

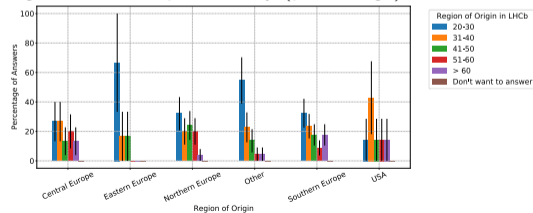
Percentage per country of origin



Absolute number of entries

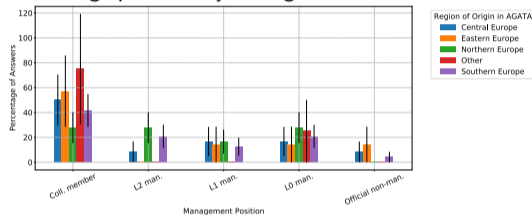


Age distribution per country (percentage)

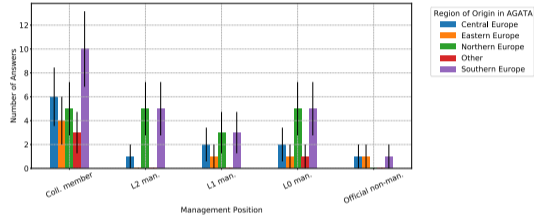


AGATA country of origin versus management position

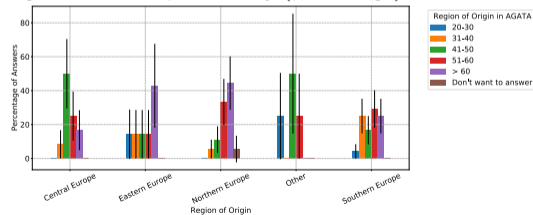
Percentage per country of origin



Absolute number of entries

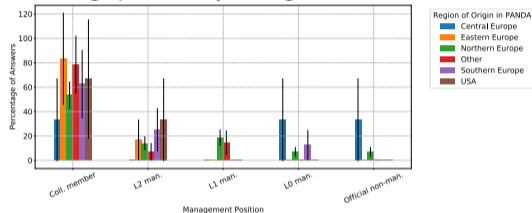


Age distribution per country (percentage)

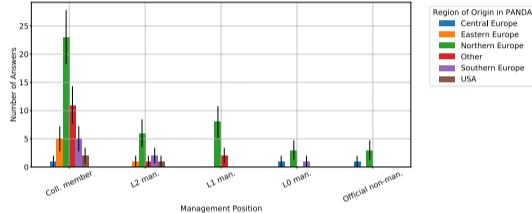


PANDA country of origin versus management position

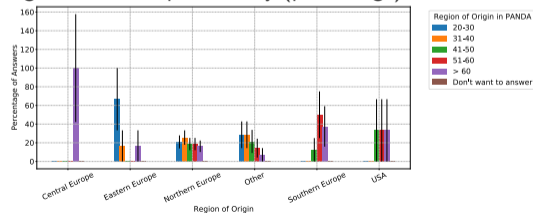
Percentage per country of origin



Absolute number of entries

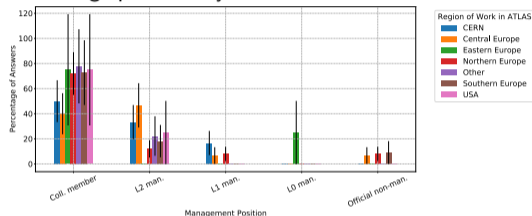


Age distribution per country (percentage)

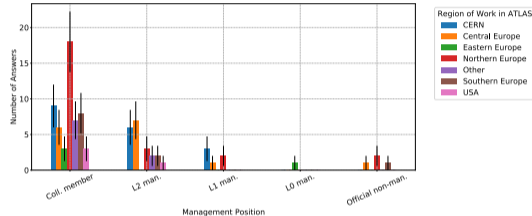


ATLAS country of work versus management position

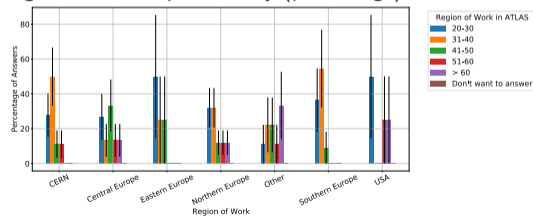
Percentage per country of work



Absolute number of entries

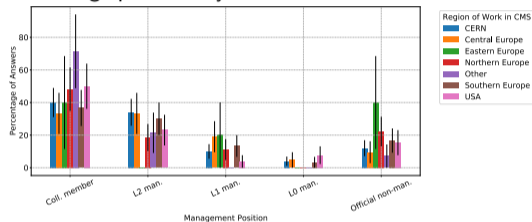


Age distribution per country (percentage)

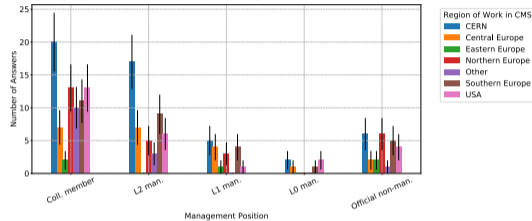


CMS country of work versus management position

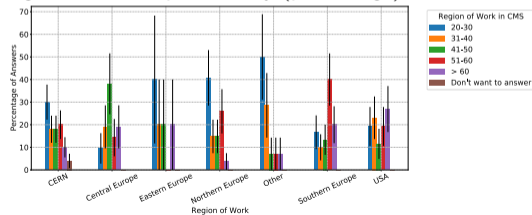
Percentage per country of work



Absolute number of entries

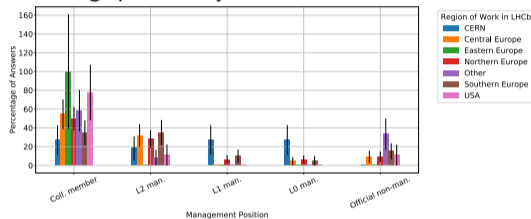


Age distribution per country (percentage)

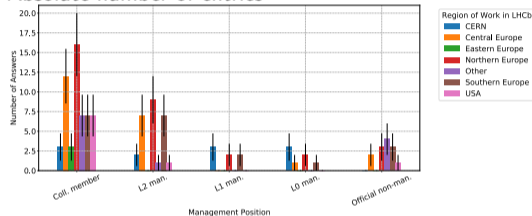


LHCb country of work versus management position

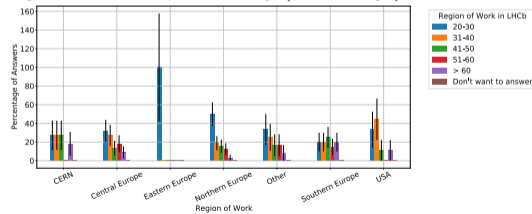
Percentage per country of work



Absolute number of entries

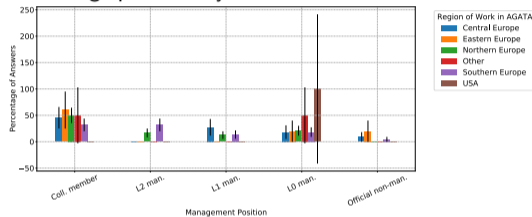


Age distribution per country (percentage)

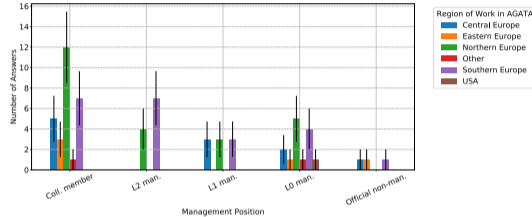


AGATA country of work versus management position

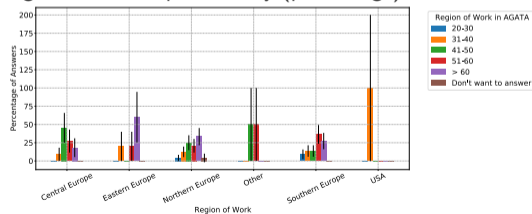
Percentage per country of work



Absolute number of entries

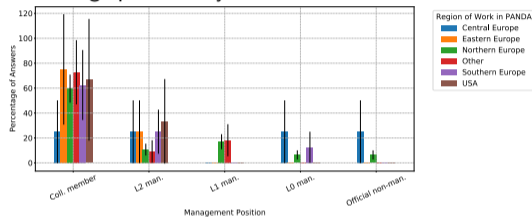


Age distribution per country (percentage)

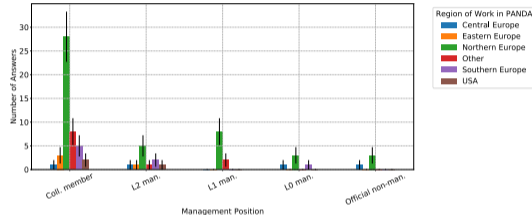


PANDA country of work versus management position

Percentage per country of work



Absolute number of entries



Age distribution per country (percentage)

