

ALICE



ATLAS
EXPERIMENT



Early-career scientists' perspectives

LHCP2018: Sixth Annual Conference on Large Hadron Collider Physics, *Jun 2018, Bologna*

Miha Muškinja

on behalf of ALICE, ATLAS, CMS, LHCb collaborations

About 50% of all authors are early-career physicists



7/6/2018, LHCP Bologna

Miha Muškinja

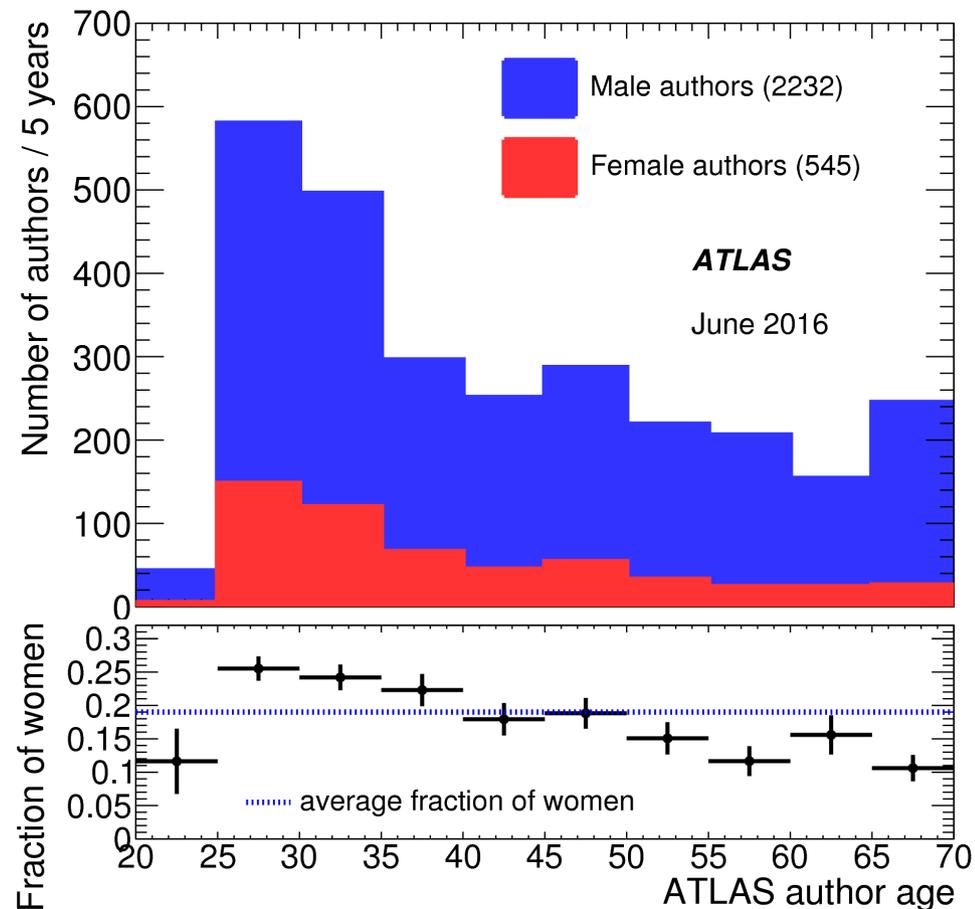
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The exact definition of 'early-career' may vary across Collaborations. Generally, it includes **untenured** researchers or members **without a permanent contract**.

Of course we also have the data

- **Early-career scientists are about 50% of all authors** in ALICE, ATLAS, CMS, LHCb.
- The **well-being** and general **satisfaction** of the early-career community is very **correlated to the performance** of whole Collaborations.
- These facts are very well recognized by the managements and CBs of the four experiments.
- One of the proactive solutions in all Collaborations was to **form boards/committees representing the early-career community**.



[ATL-GEN-PUB-2016-001]

History of the four boards

The Junior Community in ALICE
Formed: **2010**, ALICE

CMS Young Scientist Committee (YSC)
Formed: **2013**, CMS

Early Career, **Gender** and **Diversity** Office
Formed: **2014**, LHCb

The Early Career Scientist Board (ECSB)
Formed: **2017**, ATLAS

Mandate and general activities

- **Generally, all four boards have a very similar mandate:**
 - represent common interests of the early-career scientists;
 - advise the Collaboration Board and the Management on EC matters;
 - gather feedback from ECS and statistics on EC matters;
 - forum to gather and discuss topics relevant to early-career community;
 - improve recognition of ECS' work; ...
- **The structure of the boards vary (greatly) across the Collaborations, however, the goals are met very efficiently in all boards,**
- **Boards independently organize similar events interesting for ECS,**
- **The boards also work together on broader CERN-wide events.**

EC = **E**arly **C**areer

ECS = **E**arly **C**areer **S**cientist(s)



Structure and organization: ATLAS, CMS, LHCb

The Early Career Scientist Board (ECSB)

- Seven active members + alumni,
- Two year term with a change every year,
- Rotating chair on a monthly basis,
- Consensus driven decisions.



CMS Young Scientist Committee (YSC)

- 17 active members + six advisers,
- Voluntary, no time limit,
- Chair, deputy chair, secretary.



Early Career, Gender and Diversity Office (ECGD)

- Two active members, mixed genders,
 - Two year term,
 - Engaged in many other matters than EC issues
- Gender, diversity, equality, inclusion, ...



Structure and organization: ALICE



ALICE

Junior committee

three members

- Run elections for junior representatives,
- Organize Junior's Day during ALICE Week.

Junior representatives

three members

- Participate in the management board,
- **Vote in the (CB) collaboration board** (3 out of 96 votes),
- Two year mandate.

Junior ambassadors

28 members

- National contact person,
- Raise country specific issues.

- The three votes from the juniors in the CB ensure that ECS are informed and represented,
- Junior representatives are approached by most seniors that run for an election (e.g. spokesperson, CB chair) to address the quality of life for juniors within ALICE,
- Viewpoints and issues of juniors are very well taken into the account with this system.

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Something to consider for other Collaborations...

- The three votes from the juniors in the CB ensure that ECS are informed and represented,
- Junior representatives are approached by most seniors that run for an election (e.g. spokesperson, CB chair) to address the quality of life for juniors within ALICE,
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Events that would not exist without ECS boards..



.. and many more.
Some summarized
In the following.

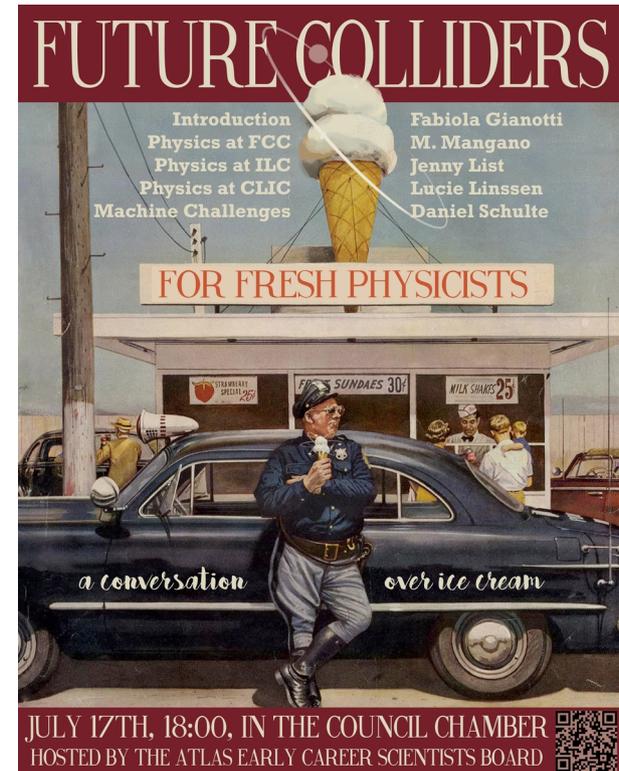


- Supported by all four Collaborations, organized also by members of **ECS boards**:
 - Two events so far, in 2016 and 2017: <https://indico.cern.ch/category/8142/>
- Former LHC physicists talk about their careers outside HEP,
- Event offers an insight into career opportunities outside of academia,
- Panel discussion and opportunities to socialize after the event when refreshments and snacks are served.



Future Colliders for Fresh Physicists

- Getting early-career scientists involved in topics beyond their current work is a goal for all four boards. Considering this, the ATLAS ECSB organized an event which revolves around **Physics and Machine Challenges at Future Colliders**.
- **CERN-wide** event with both theoretical and experimental talks covering the **FCC**, **ILC**, and **CLIC**.
 - Started by **A word from the CERN Management** by **Eckhard Elsen**, Director for Research and Computing.
- Plans to organize it again in collaboration with all four boards and covering a different topic.



Even more events for ECS...

Spokesperson candidates debate for young community



Plenary Session at every LHCb week

Junior's Day

Recognition of ECS' work

Regular get togethers for CMS Young Scientists

Journal Club

Social events

Career Path Q&A

Career Talks

Career planning

Meet-and-Greet at LHCb week

Meet-and-Eat

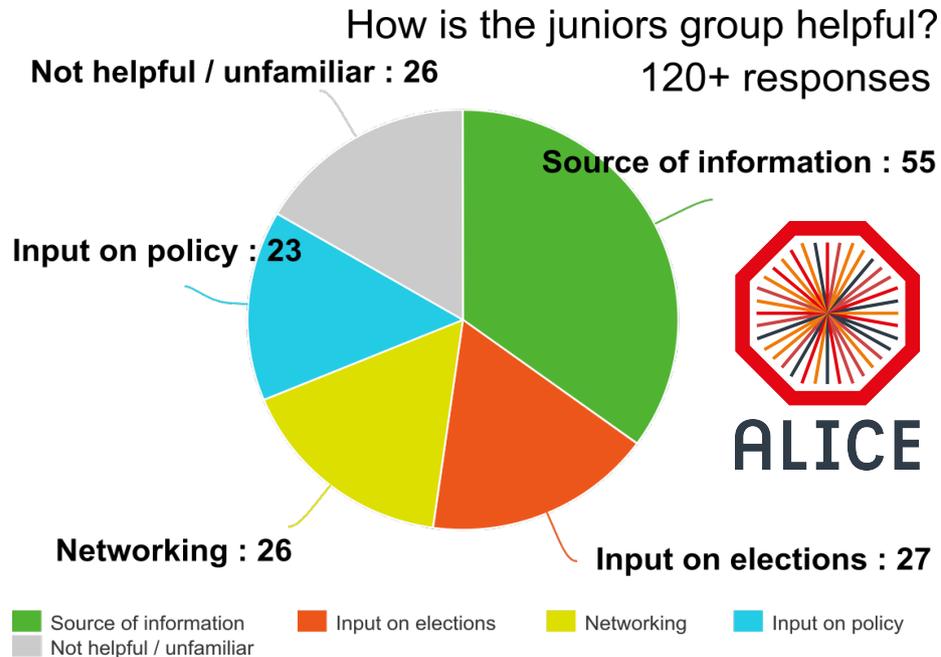
Junior / senior barrier

Activities and interests within the Collaboration

Polls: Gathering statistics and identifying areas that need focused attention.

Mentoring: Pair students and post-docs from different institutes. Occurs naturally, however, deserves more encouragement.

Already active in LHCb, early stages in ATLAS.



- Students sometime either stay at CERN without a regular supervision or they need technical expertise which may not be available at their home institutes.
- A list of 'mentors' is maintained with a brief description of mentors' expertise,
- Students together with their supervisors may contact the expert,
- The education and supervision of a student remain the responsibility of the supervisor.

Activities and interests within the Collaboration

Recognition of ECS' work:

- All four ECS boards consider of major importance the recognition of EC scientist,
- Make **additional opportunities for ECS to present their work**, e.g. dedicated sessions at Collaboration weeks, short talks at Weekly Collaboration meetings,
- Currently, in **ATLAS** and **CMS** there are **official task-forces**, composed of ECS board members and management, **aiming to improve the recognition**,
- **Recognition outside the Collaboration** is hard to achieve for juniors. Mostly, it comes from conference talks and 'PhD awards'.

Feedback from the Collaboration: ATLAS Meet & Eat

Meet & Eat (organized by the ATLAS ECSB)

Rules of the game:

- sign up either as a 'junior' or 'senior';
- randomly assigned pairs of junior/senior invited to have lunch together in R1 (or via. Skype).

Organized twice so far and about 150 pairs made.



Marko Stamenkovic
@StamenkM

Following

Great lunch with Al Goshaw from @DukeU today, thanks to @ATLASexperiment Meet & Eat! May I contribute to the discovery of half as many particles as you did during the last 50 years! I'm grateful for the nice advices on how to be a good physicist!



5:29 AM - 27 Apr 2018

2 Retweets 11 Likes



Feedback from the Collaboration: ATLAS Meet & Eat

Meet & Eat (organized by the ATLAS ECSB)

- Very positive response to the survey after the event,
- 93% rated the conversations as pleasant experience,
- 100% would recommend it and 98% would meet again.

“Cannot be put in simpler words: I liked listening and talking to someone with higher experience about so many different things”

“Thanks for an invigorating and informative experience!”

“A quick insight in what the new generation experience and their way of thinking”

“It is a great initiative from all of you, and I hope you pursue this and any other ideas you may have to weave a tighter network between all of us in ATLAS.”



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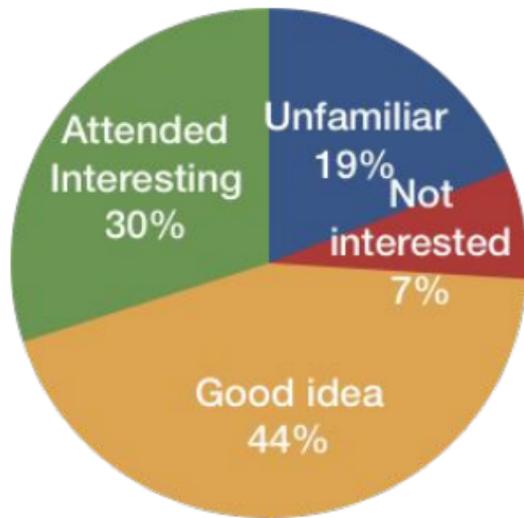


Feedback in the ALICE Collaboration



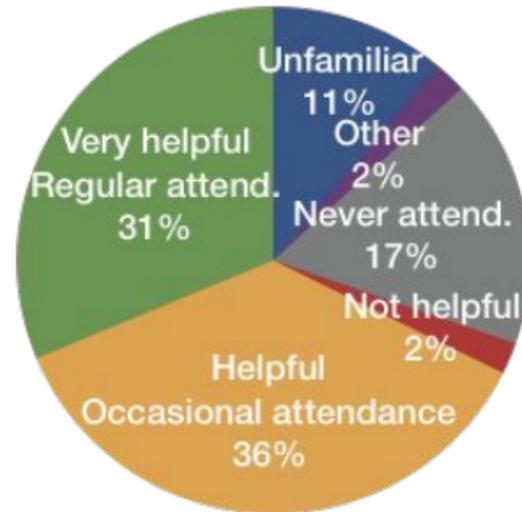
ALICE

Journal Club



❖ Vast majority interested

Analysis Tutorial



❖ Good attendance
❖ Well received

"Juniors helped me feel a part of the community at CERN, a sense of belonging. Juniors inspired me to be more expressive."

"Over time, the tutorials have continued to improve my coding abilities as I contribute more code to the Collaboration."

"I find the ALICE journal club very useful, healthy for the collaboration and of significant educational value for everyone."

Summary and outlook

- Despite different structures of the ECS boards, they achieve the same goals and improve the efficiency of the entire Collaboration by making the day-to-day life of ECS better.
- Main activities involve:
 - Collaboration with the management and the CB regarding EC matters,
 - Gathering statistics and feedback from ECS,
 - Organizing various events for ECS, ...
- So far, we've only discussed the achievements and benefits, but what are the biggest obstacles / issues?
 - All four boards identified as the main issue the **difficulty to reach the young community and get their attention / interest.**
- In preparations for this talk, all four boards agreed to meet yearly and exchange information and ideas. Jointly organized events and initiatives will follow.

Additional information

Contact information

The Early Career Scientist Board (ECSB)

- atlas-ecsb@cern.ch



CMS Young Scientist Committee (YSC)

- cms-young-scientist-committee@cern.ch



Early Career, Gender and Diversity Office (ECGD)

- arantza.de.oyanguren.campos@cern.ch
- matthew.john.charles@cern.ch



Junior representatives

- alice-junior-reps@cern.ch



Members

Junior Representatives

- Erin Gauger,
- Mike Sas,
- Jeremy Wilkinson.

Junior Committee

- Jihye Song,
- Kunal Garg,
- JinJin Pan.



Early Career, Gender and Diversity Office

- Arantza De Oyanguren Campos
- Matthew John Charles



The Early Career Scientist Board

- Claire Lee,
- Gabriel Facini,
- Xingguo Li,
- Miha Muskinja,
- Ana Peixoto,
- Stefan Richter,
- Valentina Cairo.

Alumni

- Katherine Pachal,
- Rustem Ospanov,
- Ruth Pottgen.



CMS Young Scientist Committee (YSC)

- Isabelle De Bruyn
- Kelly Beernaert
- Afiq Anuar
- Leonardo Cristella
- Giuseppe Fasanella
- Santiago Folgueras
- Sandro Fonseca
- Doga Gulhan
- Siew Yan Hoh
- Kamal Lamichhane
- David Morse
- Thong Nguyen
- Milena Quittnat
- Emanuele Usai
- Tamas Vami (chair)
- Qun Wang
- Gurpreet Singh Chahal (deputy chair)
- Fengwangdong Zhang (secretary)

Advisory members

- Anne Dabrowski (first chair ever)
- Pieter Everaerts
- Terhi Jarvinen
- Stefano Mersi
- Merijn Van De Klundert
- Rachel Bartek

