

## Extended Report from the LHC Experiments' Young Scientist Fora

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**K. Coldham on behalf of the ALICE, ATLAS, CMS and LHCb collaborations**

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The LHC Early Career Scientist Fora (LHC ECSF) comprises the ALICE Junior Representatives, ATLAS Early Career Scientist Board (ATLAS ECSB), the CMS Young Scientists Committee (CMS YSC) and the LHCb Early Career, Gender and Diversity Office (LHCb ECGD). This conference proceeding provides an update about the ECSF's mental health check-in, which was led by the ALICE Junior Representatives and in collaboration with psychologist Sarah Speziali.

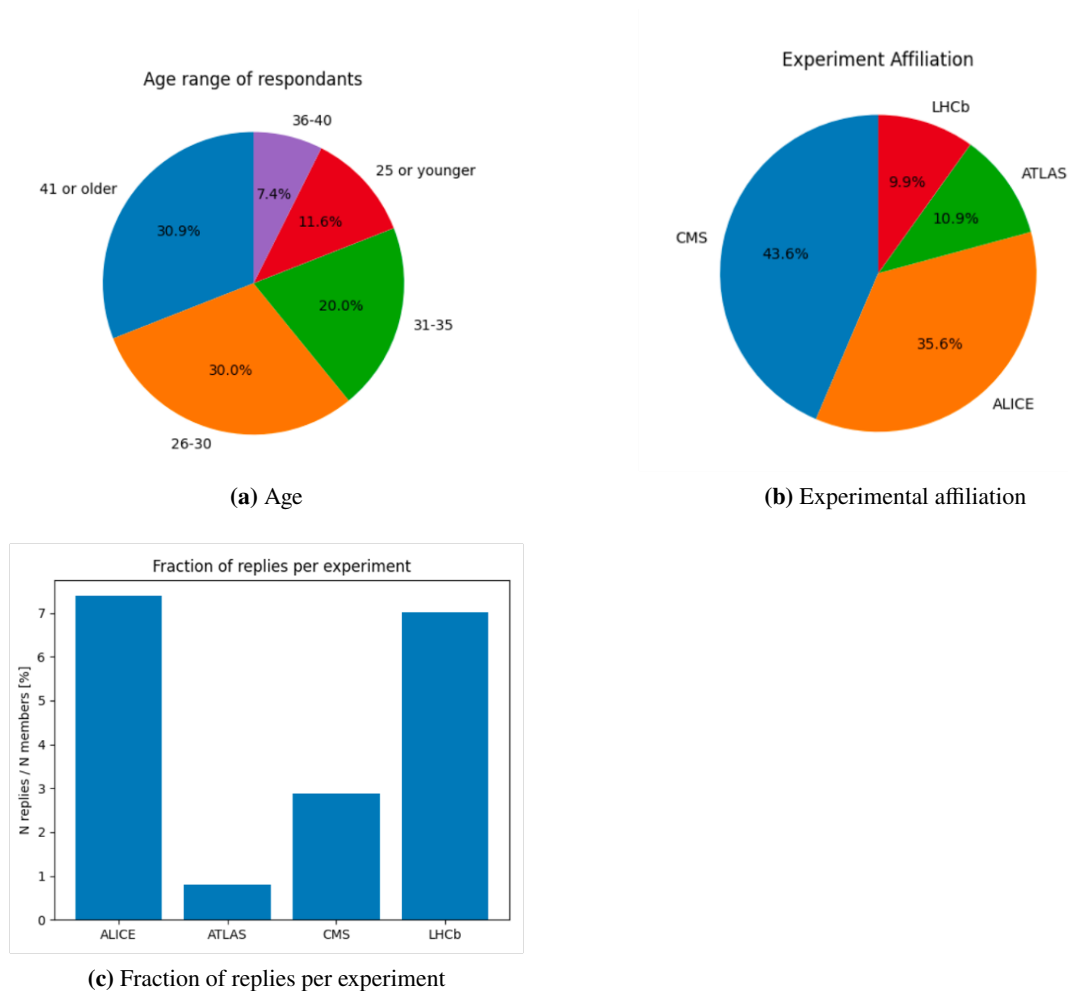
*12th Edition of the Large Hadron Collider Physics (LHCP) Conference  
3rd-7th June 2024  
Boston, Massachusetts, U.S.A.*

## 1. Introduction

The LHC Early Career Scientist Fora's [1] ALICE Junior Representatives created a mental health check-in survey, in collaboration with psychologist Sarah Speziali [2], to assess the mental health of LHC scientists. The survey was circulated via email to all ALICE, CMS and LHCb members. It was advertised during the ATLAS Week by the ATLAS Diversity and Inclusion Office. Responses were recorded from early May 2023 and preliminary results were presented at LHCP 2023 [3]. The deadline for survey responses was then extended after the conference, to late June 2023. A total of 408 responses was received across ALICE, ATLAS, CMS and LHCb.

## 2. Demographics

Most respondents were from CMS (43.6%) or ALICE (35.6%), and 61.7% were aged 35 or below. The highest fraction of replies per experiment came from ALICE, followed by LHCb.



**Figure 1:** The ages (subplot a) and experimental affiliations (subplot b) of respondents, in addition to the fraction of replies per experiment (subplot c).

### 3. Experience with mental health challenges

Around 56% of respondents reported having either a daily or monthly experience in dealing with mental health challenges. The most common symptoms reported were: finding it hard to relax, finding it difficult to work up the initiative to do things, over-reacting to situations and feeling agitated. 60.2% of respondents reported having experience of supporting someone with a mental health challenge, either on a daily (19.1%), monthly (30.2%) or yearly basis (10.9%).

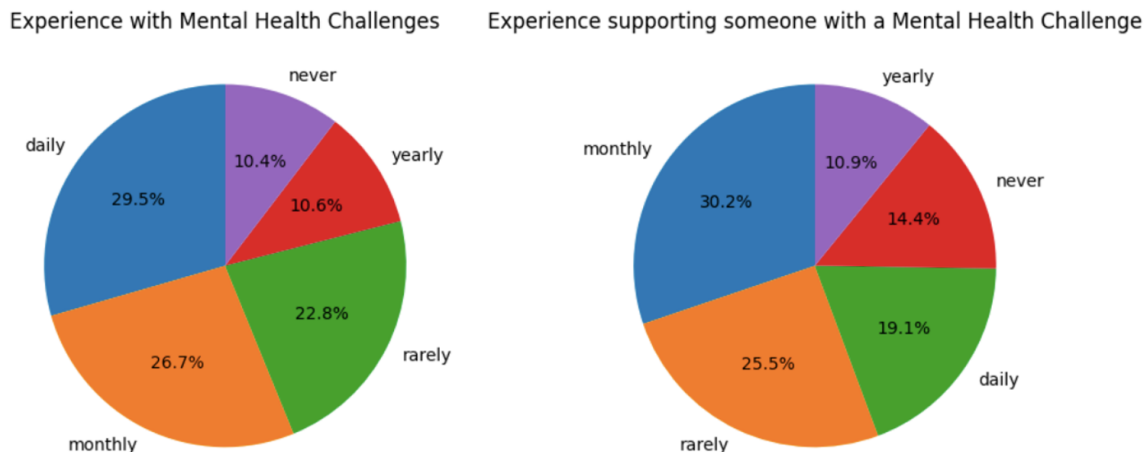


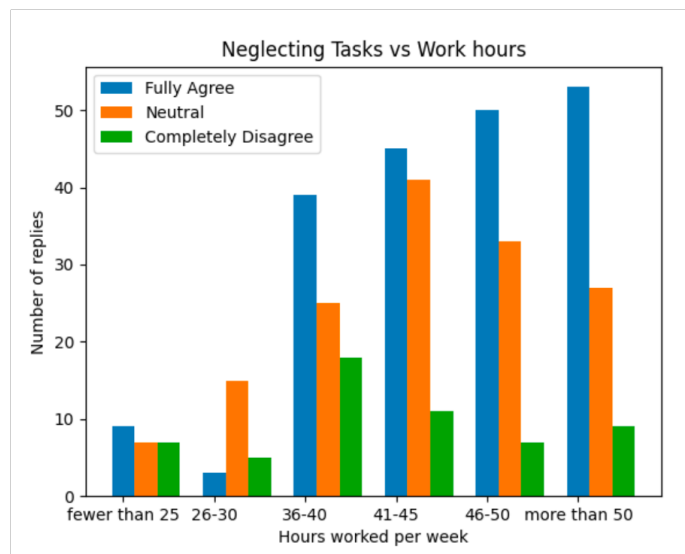
Figure 2: Experience in personally dealing with mental health challenges (left) and supporting someone else with a mental health challenge (right).



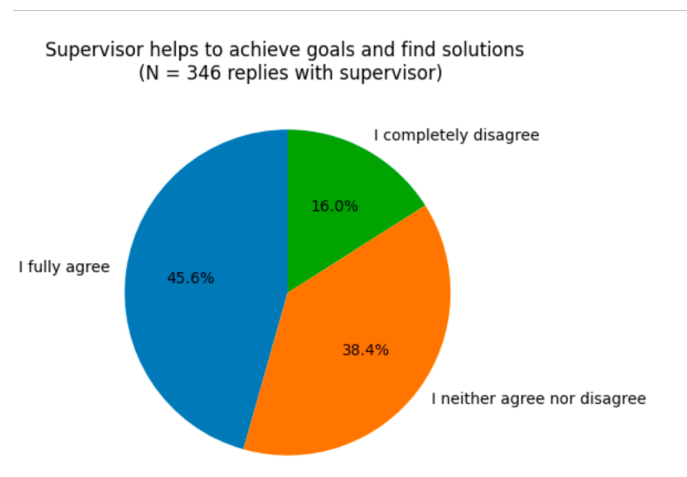
Figure 3: Reported symptoms.

#### 4. Work hours and supervisory support

Respondents with longer work hours reported having higher stress levels or neglecting tasks at work. Most respondents reported they experience pressure to work long hours or on the weekends. These results demonstrate a correlation between the number of hours worked per week and work tasks being neglected. Additionally, while 45.6% of respondents reported that they receive support from their supervisor, 38.4% neither agreed nor disagreed. This suggests there is a need for improvement in terms of the supervisory support received by early career researchers.



(a) Hours worked per week



(b) Supervisory support

**Figure 4:** The correlation between the number of hours worked per week and the neglectation of work tasks (subplot a) and the percentage of respondents reported to receive supervisory support (subplot b).

## **5. Summary**

The LHC ECSF aims to represent and meet the professional needs of early career researchers working on the four main LHC experiments. An update for the results of the mental health check-in survey conducted in 2023 has been presented. Most respondents reported experience with mental health challenges, or they experienced pressure to work long hours or on the weekends. 45.6% of respondents reported receiving supervisory support, but there is room for improvement. These results emphasize the importance of mental health awareness, supervisory support and the negative impact of overworking. A publication note is being drafted and is expected to be published by the end of 2024.

## **References**

- [1] K. Coldham. Report from the LHC Experiments' Young Scientist Forums, 2024. Available: [https://indico.cern.ch/event/1253590/contributions/5814453/attachments/2869081/5022703/LHCP\\_ECSF\\_KC.pdf](https://indico.cern.ch/event/1253590/contributions/5814453/attachments/2869081/5022703/LHCP_ECSF_KC.pdf).
- [2] S. Speziali. Sarah Speziali, 2024. Available: <http://www.sarahspeziali.com/>.
- [3] Petra Loncar. Experiences from Mental Health Workshops for LHC Scientists. *PoS*, LHCP2023:059, 2024. Available: <https://inspirehep.net/literature/2755904>.