EXPERIENCES FROM MENTAL HEALTH WORKSHOPS
FOR LHC SCIENTISTS

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on behalf of the ALICE, ATLAS, CMS, and LHCb Collaborations

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MENTAL HEALTH

“Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community.”

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

World Health Organization
IMPORTANCE OF MENTAL HEALTH

• important aspect of health
• prerequisite and determinant of quality of life
• personal, community, and socio-economic development

RISK FACTORS
• stress - negative impact on mental and physical health
  → work - the biggest stress trigger
  → Academia - very stressful
• COVID-19 pandemic - many changes in everyday life

WORKSHOPS’ PURPOSE
• raising awareness of the importance of investing in mental and physical health

Source: Yerkes-Dodson law, mental health workshop materials, February 2023

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What does mental well-being mean to you?

- having a stable job
- peace of mind
- feeling motivated for work
- not feeling under pressure
- perform at the best of my ability
- good relations with colleagues
- having enough energy to take care of other people
- not feeling overwhelmed
- having enough time to rest
- not feeling overwhelmed

Source: Anonymous survey among ALICE scientists (May 2022)
MENTAL HEALTH AND WELL-BEING AT THE LHC

Are you currently facing any mental well-being challenges?

- depression
- sadness
- mental exhaustion
- anxiety
- phobia
- fears about impact of war and crises
- worries about uncertain future
- high workload and lack of time
- inefficiency during working hours
- constantly being under pressure
- burnout
- being forced to move to another country
- struggling with choice between family and career
- high stress level

Source: Anonymous survey among ALICE scientists (May 2022)

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MENTAL HEALTH AND WELL-BEING AT THE LHC

- survey about self-assessment of mental health among LHCb scientists (Dec 2020 vs. pre-pandemic)

**KEY RESULTS**

→ big decline in the mental health state

→ larger impact on graduate students and post-docs and those living abroad

Source: Survey among LHCb scientists, December 2020  LHCb-PUB-2021-004

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MENTAL HEALTH AND WELL-BEING AT THE LHC

1. How are you really feeling today?

- I’m feeling happy, content and balanced (13) 7%
- I’m feeling happy most of the time (60) 30%
- I’m feeling stressed or overwhelmed (70) 36%
- I’m feeling worried or nervous (45) 23%
- I’m struggling to cope and/or feel sad (9) 5%

1. What are your main stress triggers? (Multiple Choice)

- Environment (45/187) 24%
- Relationships (67/187) 36%
- Work/Study (158/187) 84%
- Life Events (29/187) 16%
- Change (35/187) 19%

Source: Anonymous survey among early career scientists of ALICE, ATLAS, CMS, and LHCb carried out during Covid (2021)

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COLLABORATION’S DESIRES

learn how to …

• find a balance between work and other activities and “switch off” the brain
• cope with self-doubt, work-induced stress, depression, career-related anxiety
• cope with the competitive environment we work in and work under pressure
• promote mental health and create a safe environment in a big collaboration
• help people with mental health issues
• talk about mental health with colleagues

learn about…

• time management, productivity, and self confidence
• the effect of national or global crises/wars on the mental health
• the importance of mental health and therapy and how to spot warning signs

Source: Anonymous survey among ALICE and ATLAS scientists (May 2022 and February 2023)
MENTAL HEALTH WORKSHOPS AT THE LHC

- **May 2021**
  Mental health and well-being workshop for early-career scientists at the LHC
  Organised by the Early Career Scientists Fora (ECSF)

- **ALICE Week, June 2022**
  Fostering mental well-being workshop for ALICE scientists
  Organised by the ALICE Junior Representatives and ALICE management

- **ATLAS Week, February 2023**
  Mental health and well-being workshop for early-career scientists at the LHC
  Organised by the ATLAS Early Career Scientist Board

- **ALICE Week, February 2023**
  Mental health and well-being workshop for ALICE scientists
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MENTAL HEALTH WORKSHOPS AT THE LHC

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All workshops were conducted by **Sarah Speziali**, a therapist and life coach specialised in workplace mental well-being.

www.sarahspeziali.com
WORKSHOPS’ GOALS

- understand the differences between good and poor mental health
- identify factors that influence mental health
- spot signs of mental health issues
- build mental resilience and well-being routines
- integrate strategies for coping with stress, anxiety, and depression
- discover your inner resources
- practice self-care
- improve work-life balance
WORKSHOPS’ OUTCOME

Participant’s knowledge of the subject

BEFORE
attending the workshop

AFTER
attending the workshop

Source: Anonymous survey among workshop participants (February 2023)
The content of the workshop was relevant to me.

- 57% strongly agree
- 32% agree
- 5% neither agree nor disagree
- 9% disagree
- 9% strongly disagree

Would you take part in a similar workshop in the future?

- 75% yes
- 23% maybe
- 6% no

The workshop was useful for my...

- 81% both
- 9% personal life
- 9% professional life
- 9% neither

Would you recommend this kind of workshop to a colleague?

- 89% yes
- 6% maybe
- 1% no

Source: Anonymous survey among workshop participants (June 2022 and February 2023)
The content of the workshop was relevant to me.

The workshop was useful for my...

Would you take part in a similar workshop in the future? Would you recommend this kind of workshop to a colleague?

Strong feedback towards continuing the efforts to raise awareness and create community values around mental health!

Source: Anonymous survey among workshop participants (June 2022 and February 2023)

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The current state was assessed via an anonymous survey among scientists from ALICE, ATLAS, and LHCb.

General knowledge about the topic among...

Workshop participants:
- I know a lot about this topic: 34%
- I have a modest amount: 33%
- I have a basic understanding: 22%
- I've had first hand personal experience: 11%
- I know very little at the moment: 4%

Others:
- I know a lot about this topic: 14%
- I know a modest amount: 32%
- I have a basic understanding: 39%
- I've had first hand personal experience: 11%
- I know very little at the moment: 4%

Source: Anonymous survey among ALICE, ATLAS, and LHCb scientists (May 2023)
CURRENT STATE OF MENTAL HEALTH AT THE LHC

Main stress triggers

- life events: 34%
- change: 16%
- relationships: 36%
- work/study: 82%
- environment: 30%

Stress level at work

- Very high: 40.1%
- Usually high: 35.5%
- Periodical: 9.9%
- Moderate: 9.9%
- Rather low:

Source: Anonymous survey among ALICE, ATLAS, and LHCb scientists (May 2023)
CURRENT STATE OF MENTAL HEALTH AT THE LHC

Main stress triggers

- life events: 34%
- change: 16%
- relationships: 36%
- work/study: 82%
- environment: 30%

Short-term stress triggers

- I often neglect tasks because I have too much to do: 43.4%
- It is considered normal to work on weekends: 43.4%
- I completely disagree: 38.8%
- I neither agree nor disagree: 17.8%
- I fully agree: 19.1%

Source: Anonymous survey among ALICE, ATLAS, and LHCb scientists (May 2023)
CURRENT STATE OF MENTAL HEALTH AT THE LHC

Long-term stress triggers

It is hard to find a maintain a work-life balance.

- 61.2% agree
- 28.9% neither agree nor disagree
- 9.9% disagree

It is hard to plan my future career.

- 62.5% agree
- 27.6% neither agree nor disagree
- 9.9% disagree

I am uncertain that I will achieve my career goals.

- 53.9% agree
- 31.6% neither agree nor disagree
- 14.5% disagree

Sources of stress

Workload which many scientists cannot cope with is paired with uncertainty about future career.

Source: Anonymous survey among ALICE, ATLAS, and LHCb scientists (May 2023)
CURRENT STATE OF MENTAL HEALTH AT THE LHC

Symptoms LHC scientists experience regularly

- None of the symptoms apply to me: 12%
- I felt like life was meaningless: 21%
- I felt scared without a good reason: 16%
- I felt I wasn't worth much as a person: 30%
- I felt there was nothing to look forward to: 23%
- I felt agitated: 27%
- I was excessively worried or close to panic: 43%
- I over-reacted to situations: 35%
- I found it difficult to work up the initiative to do things: 51%
- I experienced trembling: 7%
- I experienced increased heartbeat: 32%
- I couldn't experience any positive feelings: 24%
- I found it hard to relax: 62%

Note: The participants were asked which of the listed symptoms they experienced in the past two weeks, at the time of the survey.

Source: Anonymous survey among ALICE, ATLAS, and LHCb scientists (May 2023)
CURRENT STATE OF MENTAL HEALTH AT THE LHC

Awareness of work-related mental health challenges and colleagues as support network

My colleagues are willing to listen to my work-related problems.

- **52.3%** I fully agree
- **36.4%** I neither agree nor disagree
- **11.3%** I completely disagree

There is a need and desire to raise awareness of mental health challenges and to keep the discussion ongoing.

Source: Anonymous survey among ALICE, ATLAS, and LHCb scientists (May 2023)
KEY TAKEAWAYS FROM MENTAL HEALTH INITIATIVES AT THE LHC

For individuals

• prioritize and practice self-care
• engage in moderate physical activity
• familiarize yourself with coping strategies

For collaborations

• there is a large desire to establish mental health as a community value
• mental health workshops are a good way to achieve that goal
• the topic should be a priority for management and collaboration members alike

Source: Healthy Minds for Master Minds workshop “Fostering mental well-being workshop” (ALICE Week, June 2022)
ACKNOWLEDGMENTS

- **Workshop organisation:** LHC Early Career Scientists Fora (ECSF)

- **Conducting the workshops:** [Sarah Speziali](mailto:sarah.speziali@cern.ch), therapist and life coach

- **Support:** ALICE and ATLAS management

- **All workshop participants!**

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Thank you for your attention!
BACKUP
What is your age range?
152 responses

- 34.9% 25 or younger
- 21.1% 26-30
- 14.5% 31-35
- 20.4% 36-40
- 9.2% 41 or older
What is your gender?
152 responses

- **53.3%** male
- **40.8%** female
- **5.6%** non-binary
- **0.7%** I would rather not say
What is your experiment affiliation?

152 responses

- ALICE: 73%
- ATLAS: 25.7%
- CMS: 0%
FUNDING AND WORK SITUATION

Is the funding sufficient to cover your living costs?
152 responses

82.9% yes
17.1% no
FUNDING AND WORK SITUATION

Do you feel you are living close enough to your family and support network?

152 responses

- 61.8% yes
- 38.2% no

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How much do you know about mental health?
152 responses

- 37.5% I know a lot about this topic
- 29.6% I know a modest amount
- 18.4% I have a basic understanding
- 8.6% I've had first hand personal experience
- 2.9% I know very little at the moment

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Do you have experience dealing with a mental health challenge?

152 responses

- 30.3% daily
- 25% monthly
- 21.7% yearly
- 13.2% rarely
- 9.9% never
MENTAL HEALTH

Do you have experience supporting someone with a mental health challenge?

152 responses

- 30.3% daily
- 28.9% monthly
- 11.2% yearly
- 10.5% rarely
- 19.1% never

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MENTAL HEALTH

Did you attend one of the Mental Health Workshops which have been conducted at the LHC in the past two years?

152 responses

- 76.3% yes
- 23.7% no
In the last month how many hours have you worked approximately per week?

152 responses
How much of your work has been done remotely?

152 responses

- 42.8% fully in person
- 23% less than 20%
- 15.1% 20-50%
- 5% 50-70%
- 4.2% 70-90%
- 1.3% more than 90%
- 1.3% fully remotely
How does working remotely affect your workload?

152 responses

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My colleagues are willing to listen to my work-related problems.
151 responses

- 52.3% I completely agree
- 36.4% I neither agree nor disagree
- 11.3% I fully agree
WORK ENVIRONMENT

My supervisor helps me to achieve goals and find solutions to my problems.

150 responses

- 47.3% I completely disagree
- 29.3% I neither agree nor disagree
- 12.7% I fully agree
- 10.7% I don't have a supervisor

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My supervisor motivates me to do the best job I can.

151 responses

- 43% I completely disagree
- 30.5% I neither agree nor disagree
- 13.9% I fully agree
- 12.6% I don't have a supervisor
My supervisor cares about my needs and treats me fairly.

150 responses

- 56% completely disagree
- 13.3% neither agree nor disagree
- 10% fully agree
- 20.7% don't have a supervisor

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I have achievable deadlines.

152 responses

- 54.6% I completely disagree
- 28.3% I neither agree nor disagree
- 17.1% I fully agree
I have a say in my work speed and how to do my work.

152 responses

- 54.6% I fully agree
- 36.2% I neither agree nor disagree
- 9.2% I completely disagree
WORK ENVIRONMENT

I feel pressured to work long hours.
152 responses

- 37.5% I fully agree
- 41.4% I neither agree nor disagree
- 21.1% I completely disagree

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Most of my colleagues work beyond their official work hours.
152 responses

- 59.9% I fully agree
- 30.3% I neither agree nor disagree
- 9.9% I completely disagree
Senior colleagues encourage overtime.
152 responses

- I completely disagree: 51.3%
- I neither agree nor disagree: 24.3%
- I fully agree: 24.3%
It is considered normal to work on weekends.

152 responses

- 43.4% I completely disagree
- 37.5% I neither agree nor disagree
- 19.1% I fully agree

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I often neglect tasks because I have too much to do.

152 responses

- 43.4% I completely disagree
- 38.8% I neither agree nor disagree
- 17.8% I fully agree
WORK ENVIRONMENT

I am uncertain that I will achieve my career goals.

152 responses

- 53.9% I completely disagree
- 31.6% I neither agree nor disagree
- 14.5% I fully agree

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I am confident about my future professional development.

152 responses

- **48%** I completely disagree
- **21.7%** I neither agree nor disagree
- **30.3%** I fully agree
It is hard to plan my future career.
152 responses

- 62.5% I fully agree
- 27.6% I neither agree nor disagree
- 9.9% I completely disagree
WORK ENVIRONMENT

It is hard to find and maintain a work-life balance.

152 responses

- I completely disagree: 9.9%
- I neither agree nor disagree: 28.9%
- I fully agree: 61.2%
Did you experience any of the following symptoms in the past 2 weeks? Select the symptoms which apply to you.

152 responses

- I found it hard to relax: 94 (61.8%)
- I couldn't experience any positive: 36 (23.7%)
- I experienced increased heart rate: 49 (32.2%)
- I experienced trembling: 11 (7.2%)
- I found it difficult to work up time: 78 (51.3%)
- I over-reacted to situations: 66 (43.4%)
- I was excessively worried or agitated: 53 (34.9%), 56 (36.8%)
- I felt agitated: 53 (34.9%), 56 (36.8%)
- I felt there was nothing to look forward to: 35 (23%)
- I felt I wasn't worth much: 45 (29.6%)
- I felt scared without a good reason: 25 (16.4%)
- I felt like life was meaningless: 32 (21.1%)
- None of the symptoms apply: 18 (11.8%)