



# Social Media Strategies

of the LHC Experiments

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ICHEP 2024 Boston - 3 June

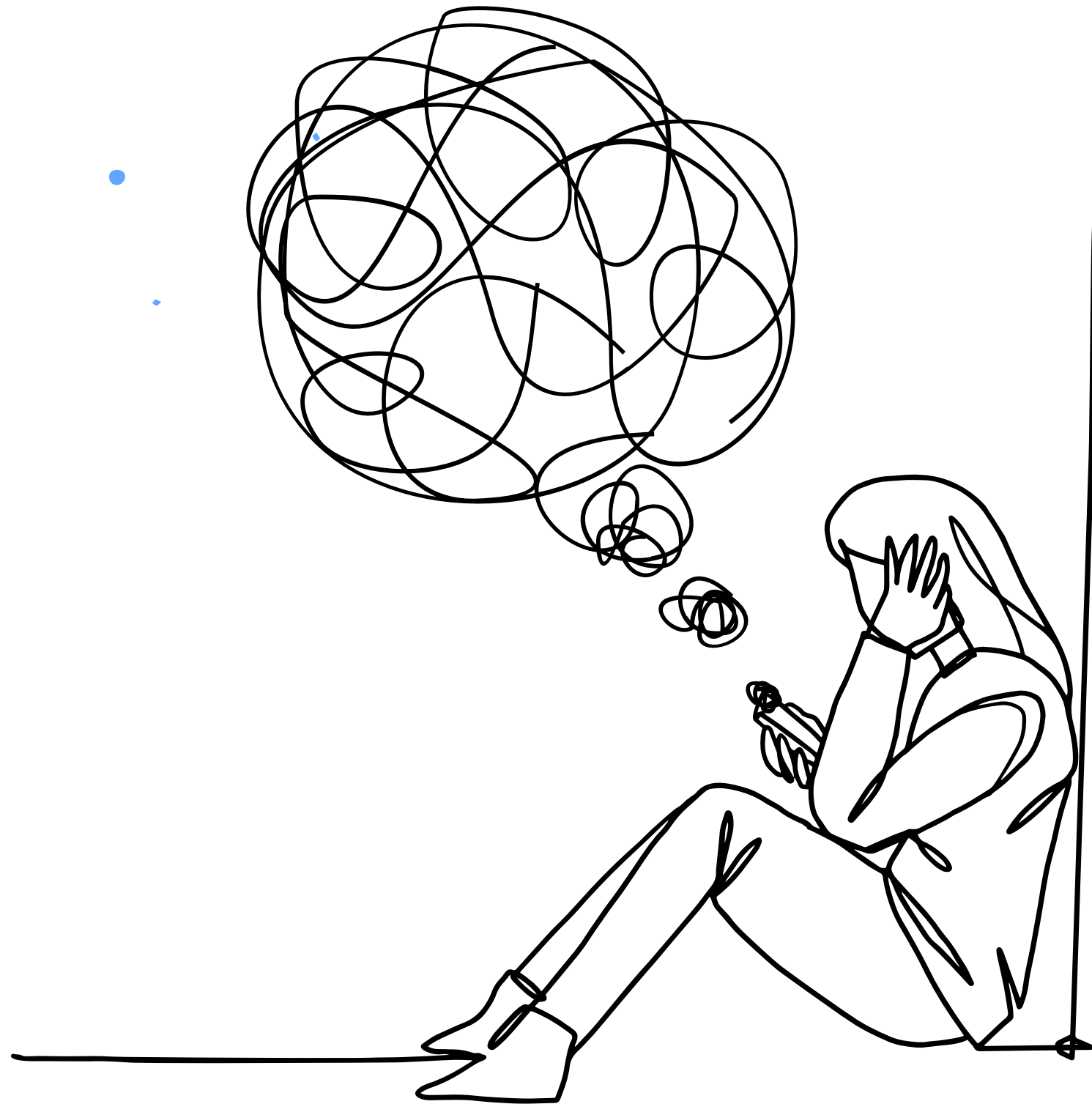
# Social Media

Digital sources are the dominant source of global media consumption.

As of July 2023, there were 5.19 billion internet users worldwide. Of these, **4.88 billion** were **social media users**.

The current **global social network penetration rate is 62.3 %**.

In 2024, the average **daily social media** usage of internet users worldwide amounted to **143 minutes per day**.



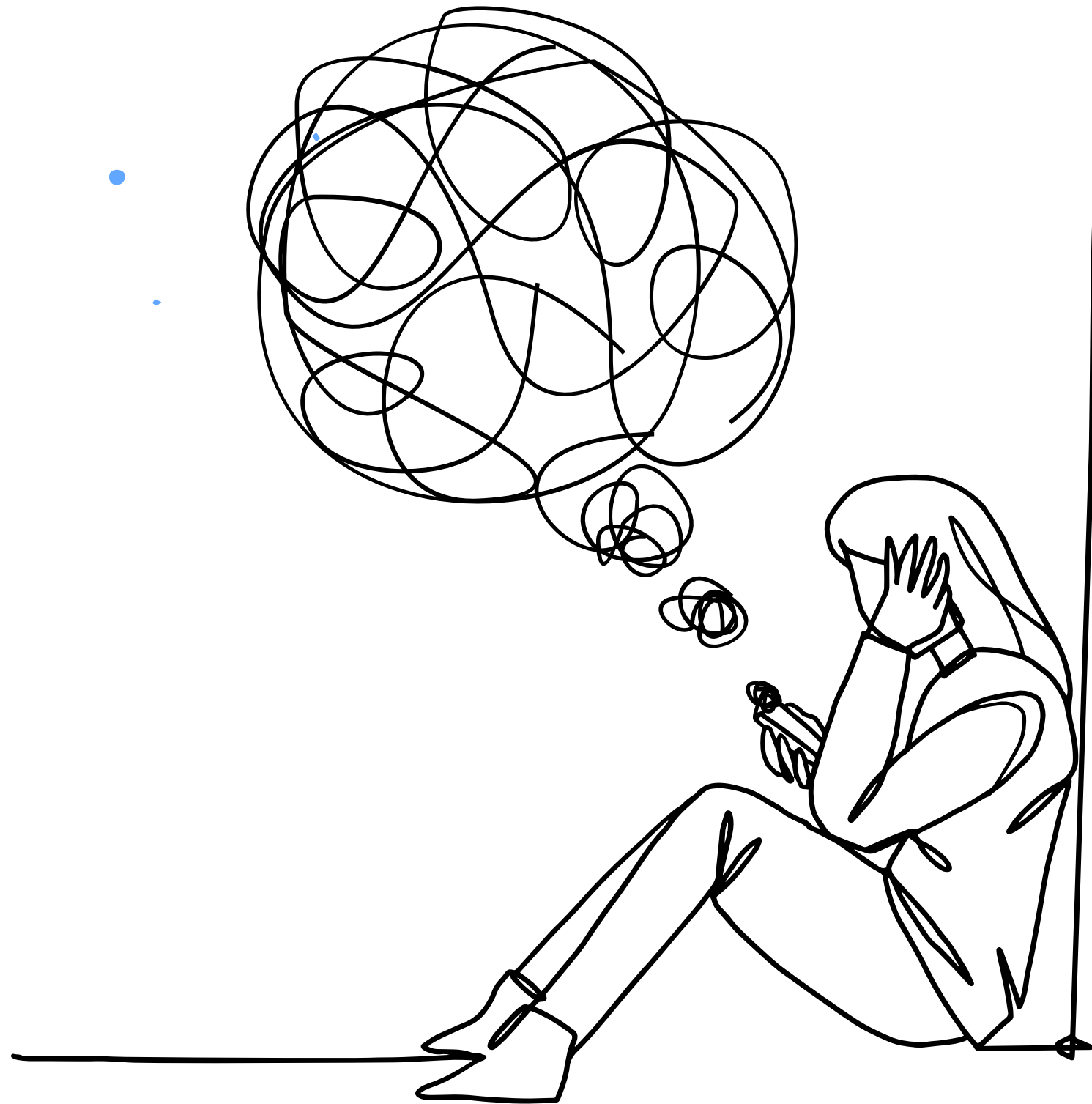
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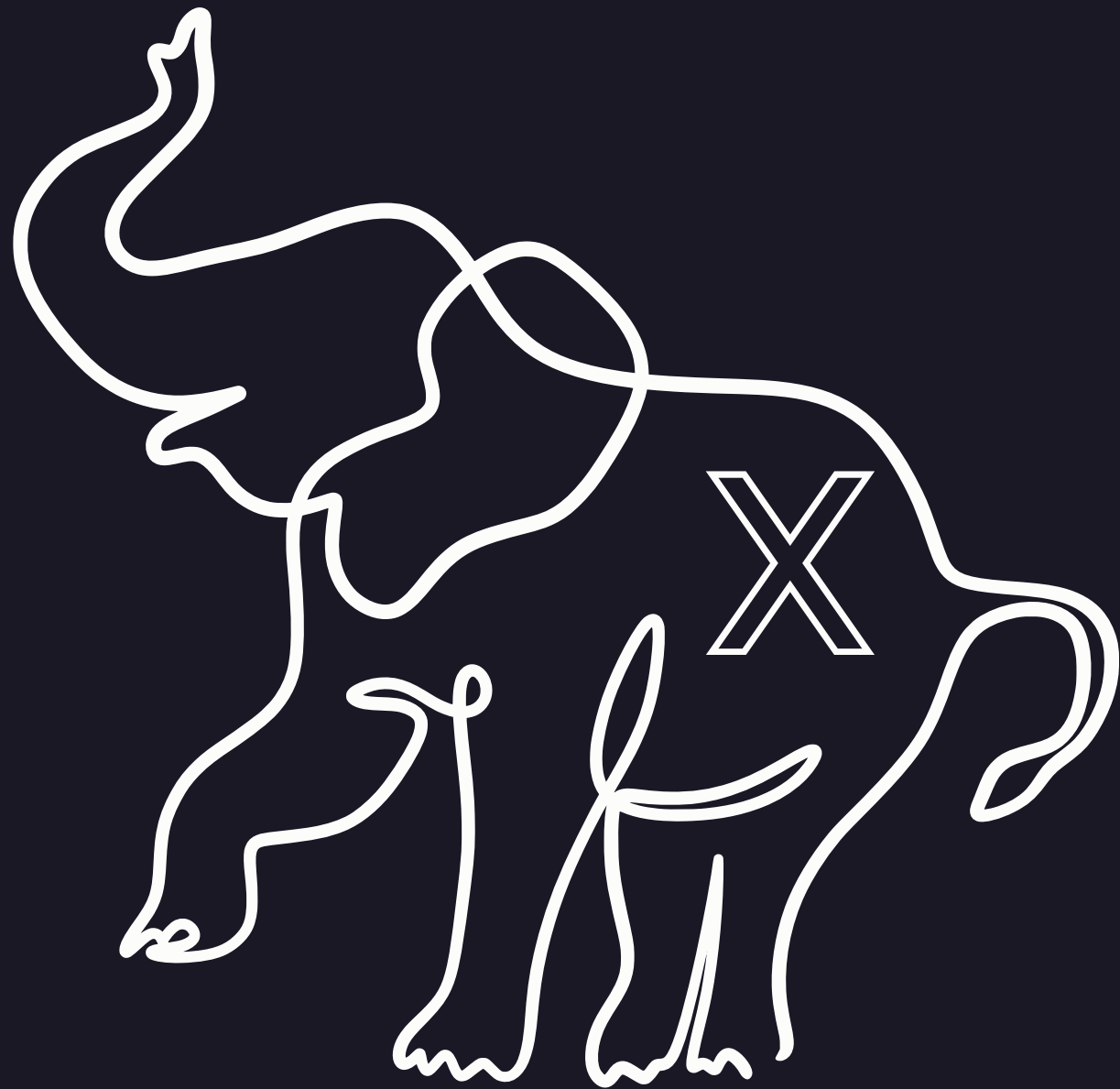
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**but nothing stays  
the same.**



(elephant, what elephant?)

# Ever-changing Social Media landscape



While still high, average daily social media use is **down for the first time** from 151 minutes (2023).

**Short-form video content** with entertainment focus continues to dominate algorithms.

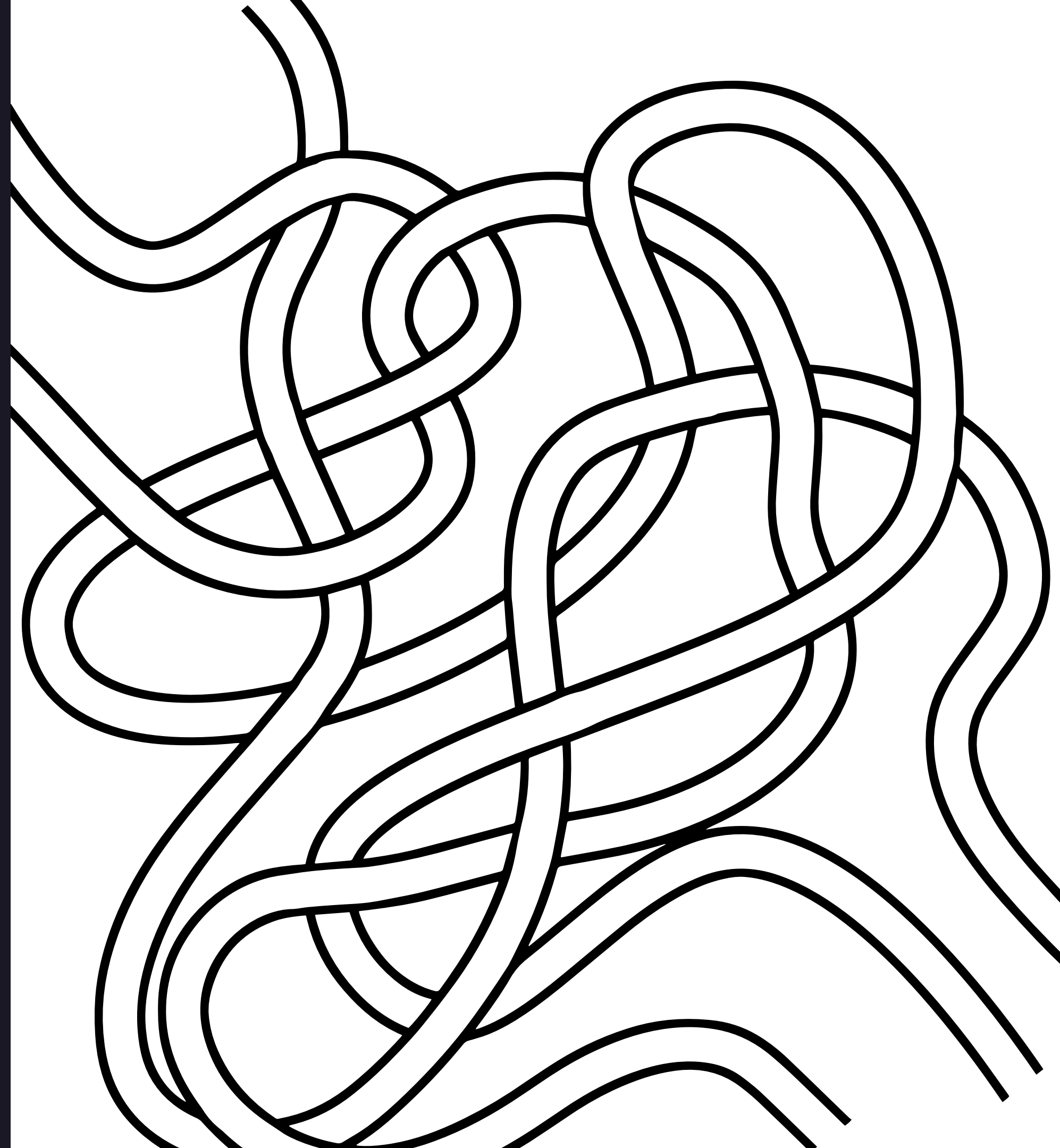
Platforms have been **deprioritising news** since 2016-2018, leading to less news consumption generally.

Steady **decline in trust** in the news globally (even when you can reach them through social media).

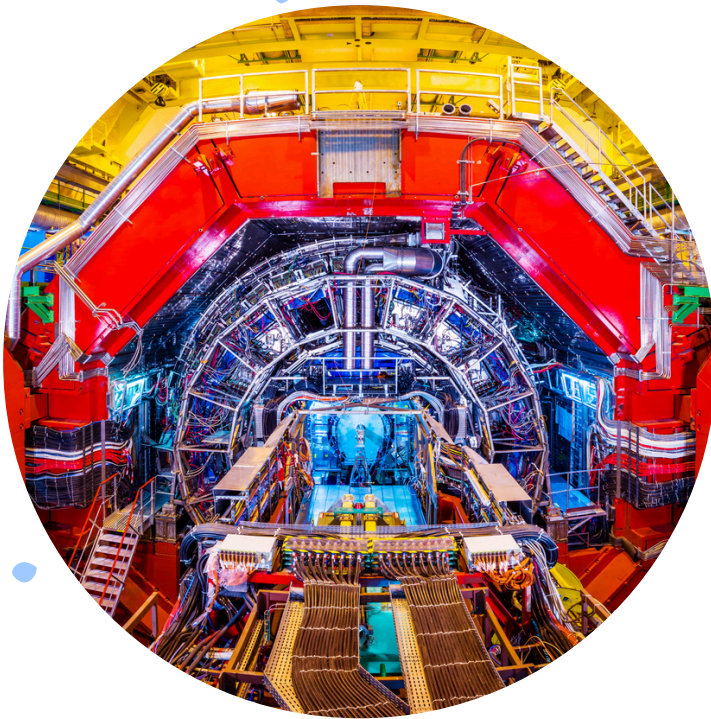
Rise of **user-to-user** news sharing, outside the publicly visible social sphere (i.e. Telegram & Whatsapp).

**LINKS**  
[Reuters/Oxford](#)  
[Pew Research Centre](#)

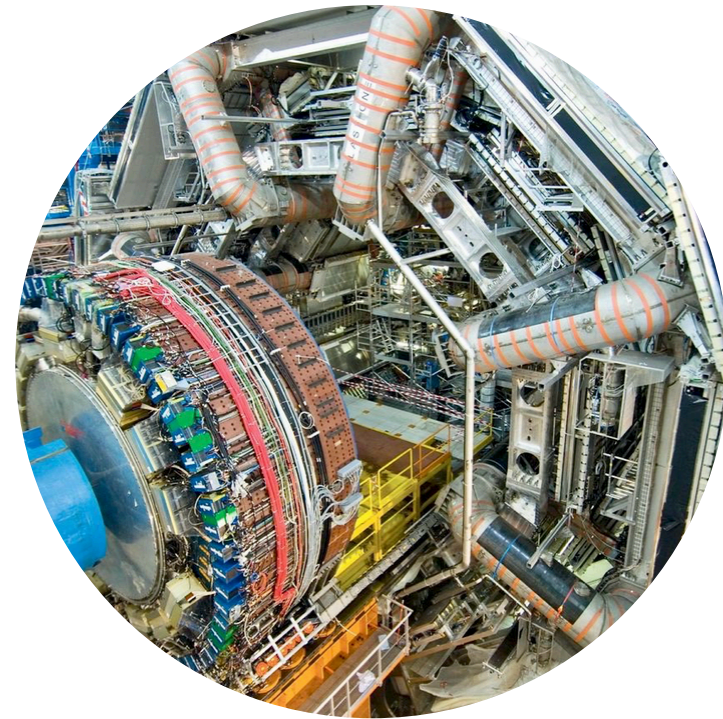
**How are the LHC  
collaborations  
navigating these  
waters?**



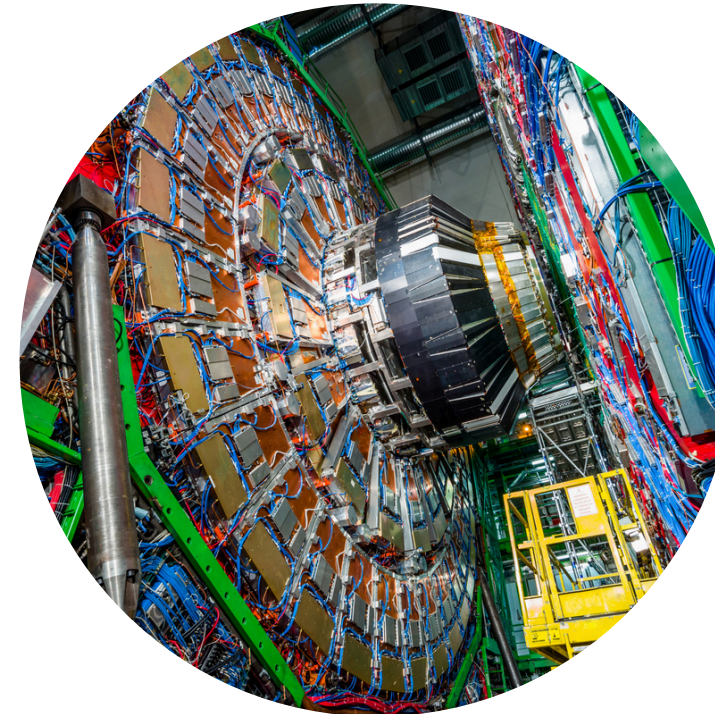
# Shared Approaches



All four large LHC collaborations have **active and diverse social media** presences (not to forget FASER & MOEDAL-MAPP)!



Shared focus on highlighting the **results** of their collaborations as well as the **people** behind them.



Social media strategies **independent but aligned** with CERN messaging and campaigns.



Diversify or die: all experiments use multiple social platforms and **tailor content** to each.

# We find them on their turf

Bluesky ATLAS

Bluesky CMS

Instagram ALICE

Instagram ATLAS

Instagram CMS

Instagram LHCb

Facebook ALICE

Facebook ATLAS

Facebook CMS

Facebook LHCb

Linkedin ALICE

Linkedin ATLAS

Linkedin CMS

Mastodon ATLAS

Mastodon CMS

Mastodon CMSpapers

Threads ATLAS

Tiktok ATLAS

Tiktok CMS

X ALICE

X ALICEpapers

X ATLAS

X ATLASpapers

X CMS

X CMSpapers

X FASER

X LHCb

X LHCbphysics

X MoEDAL

Youtube ALICE

Youtube ATLAS

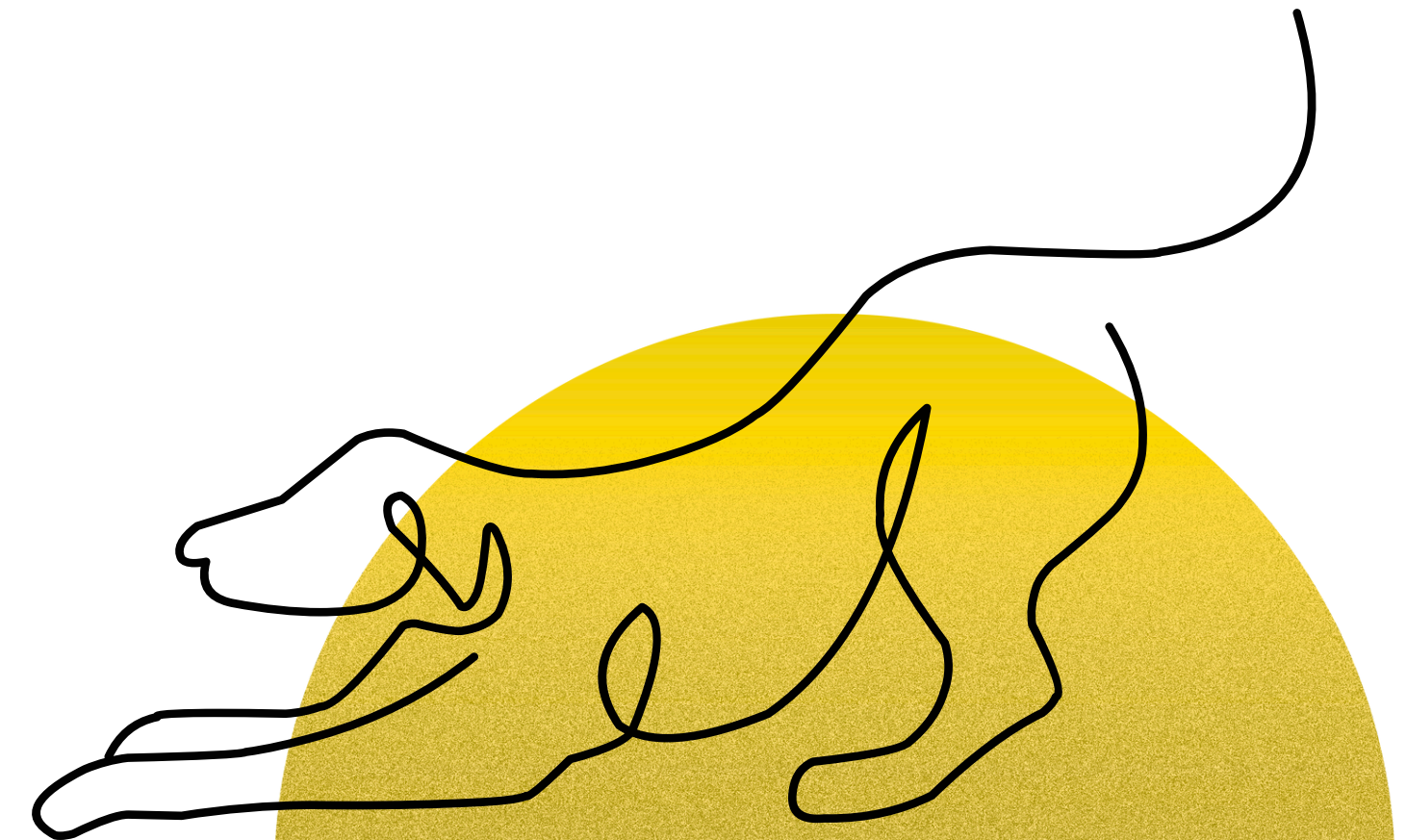
Youtube CMS

Youtube CMS Visits

Youtube LHCb

**34 LHC experiment social  
accounts (& counting)**

note: some accounts dormant





# ALICE

- communicating important events, publications, and other news
- creating stories, videos, live events (often collaborating with CERN Social Media)
- focus on photo-driven content highlighting the innovation in detector, electronics, and computing technologies and their possible applications

## TEAM

- ALICE members (2): one senior and one postdoc

**Instagram Live**  
- from ALICE underground cavern at  
**Thursday 1 February 2024 at 6 PM**  
**@alice\_experiment**

**ALICE experiment**  
30 April at 18:45 · 🌐  
Congratulations to the Inner Tracking System 3 (ITS 3) and Forward Calorimeter (FoCal) detector projects of [ALICE experiment](#):  
The ITS3 and FoCal projects of ALICE have reached the important milestone of completing their Technical Design Reports, which were endorsed by the CERN review committees in March 2024.  
The construction phase of ITS3 and FoCal starts now, with the detectors due to be installed in early 2028 in order to be ready for data taking in 2029.

**ALICE Experiment**  
@ALICEexperiment  
Charm and light-flavour mesons barely interact:  
New femtoscopy measurement by the ALICE collaboration challenges theoretical expectations and the current understanding of QCD.

**CERN Courier**  
@CERNCourier  
The ALICE collaboration has measured the interaction of open-charm mesons with charged pions and kaons for the first time — the measured scattering lengths are significantly smaller than theoretical predictions  
Shy charm mesons confound predictions – CERN Courier  
From cerncourier.com

**CERN**  
30 April at 16:53 · 🌐  
ALICE gets the green light for new subdetectors 🔍  
The [ALICE experiment](#), CERN's dedicated heavy-ion physics experiment, is upgrading its Inner Tracking System and adding a forward calorimeter for the next phase of the #LHC upgrade.

Hi I'm Meike

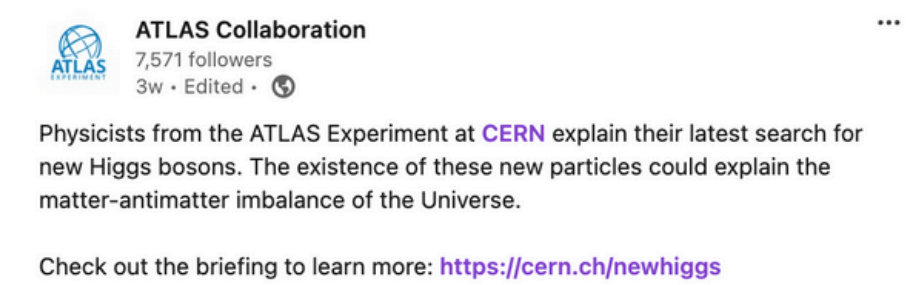
MORE HIGHLIGHTS

# ATLAS

- communicating highlights of physics, detector & collaboration news
- creating platform-specific campaigns around anniversaries or themes (i.e. May in Display/W boson@40)
- particular focus on video content with aim to have even more ATLAS member-centred content going forward
- plan to expand reach to more nationalities with non-English-speaking video content

## TEAM

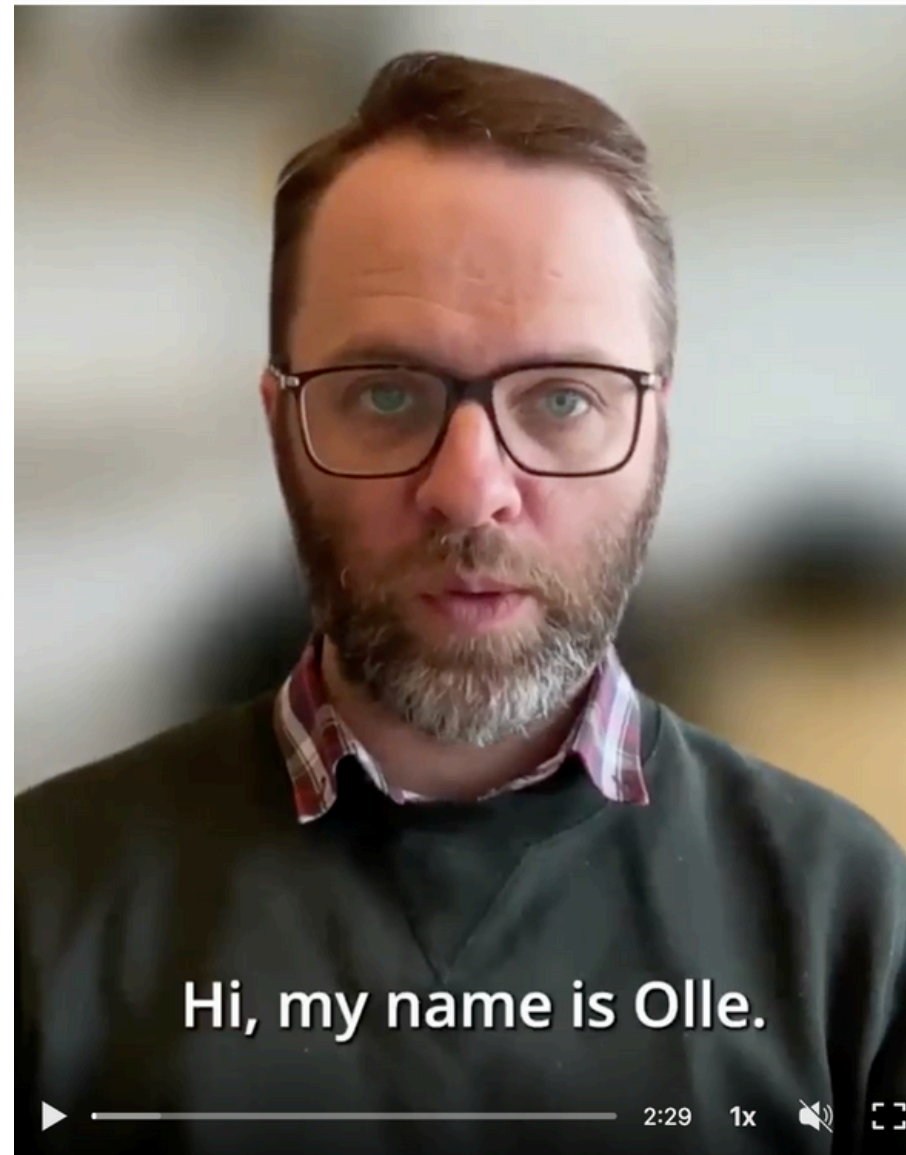
- communications officer + (until Feb) student
- ATLAS members (2) supporting Instagram & Tiktok



ATLAS Collaboration  
7,571 followers  
3w · Edited ·

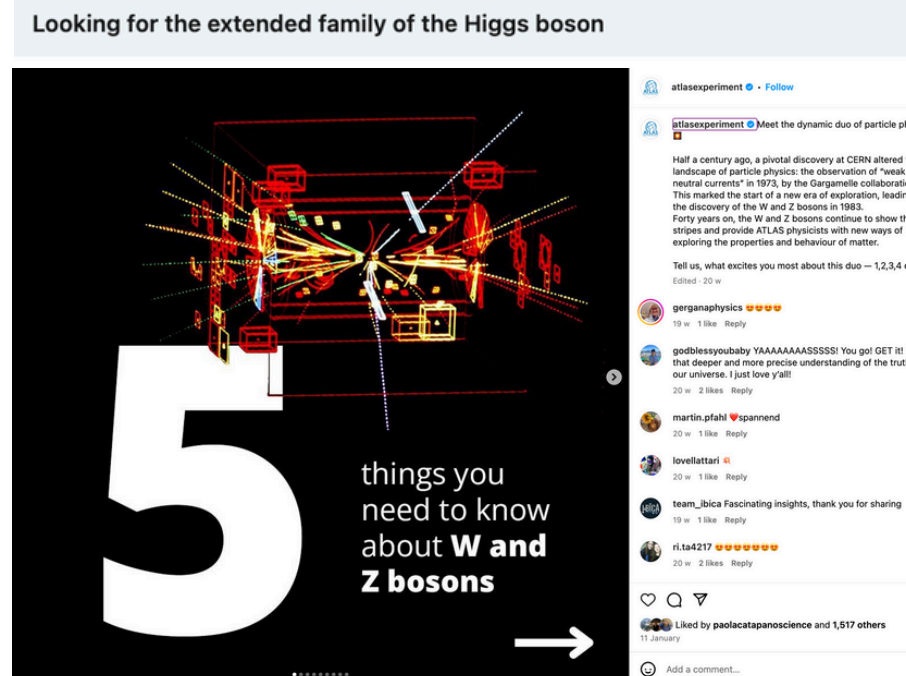
Physicists from the ATLAS Experiment at CERN explain their latest search for new Higgs bosons. The existence of these new particles could explain the matter-antimatter imbalance of the Universe.

Check out the briefing to learn more: <https://cern.ch/newhiggs>



Hi, my name is Olle.

Looking for the extended family of the Higgs boson



5 things you need to know about W and Z bosons

atlasexperiment · Follow

Half a century ago, a pivotal discovery at CERN altered the landscape of particle physics: the observation of "weak neutral currents" in 1973, by the Gargamelle collaboration. This marked the start of a new era of exploration, leading to the discovery of the W and Z bosons in 1983. Forty years on, the W and Z bosons continue to show their stripes and provide ATLAS physicists with new ways of exploring the properties and behaviour of matter.

Tell us, what excites you most about this duo — 1, 2, 3, 4 or 5?

gerganaphysics

godblessyoubaby YAAAAAASSSSSS! You got GET IT! Get that deeper and more precise understanding of the truths of our universe. I just love y'all!

martin\_pfabl

lovelattari

team\_bica Fascinating insights, thank you for sharing

rtla4217

Liked by paolacatapanscience and 1,517 others



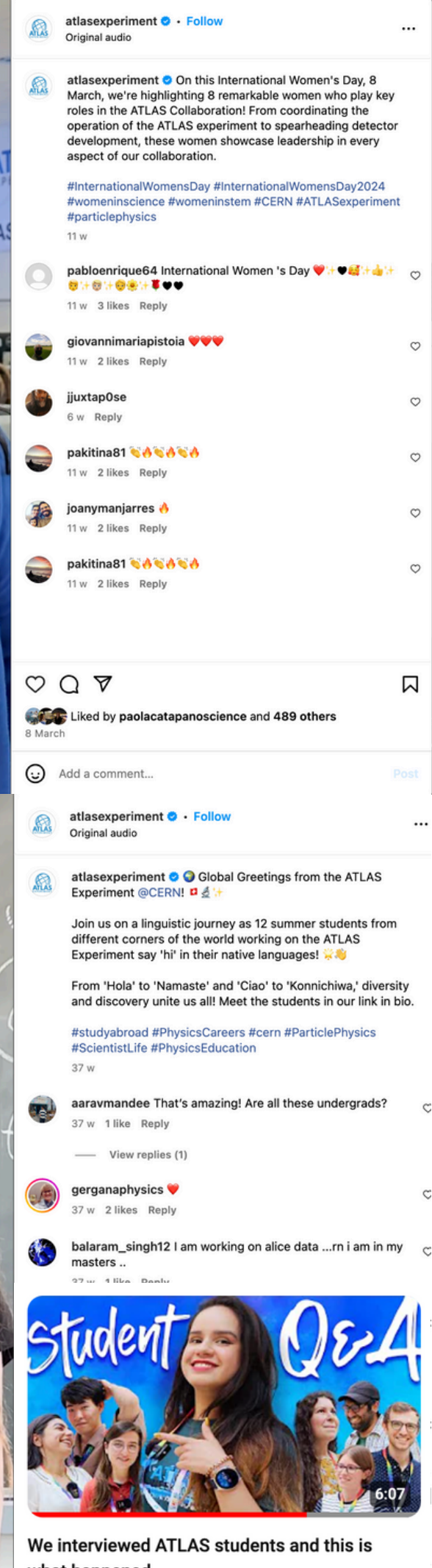
Hi! I'm Catrin Bernius

I'm the ATLAS Run Coordinator



Hi! I am an ATLAS Summer Student

Sarah MacHarg



atlasexperiment · Follow

Original audio

atlasexperiment · On this International Women's Day, 8 March, we're highlighting 8 remarkable women who play key roles in the ATLAS Collaboration! From coordinating the operation of the ATLAS experiment to spearheading detector development, these women showcase leadership in every aspect of our collaboration.

#InternationalWomensDay #InternationalWomensDay2024 #womeninscience #womeninstem #CERN #ATLASexperiment #particlephysics

pabloenrique64 International Women's Day

giovannimariapistoa

jjuxtap0se

pakitina81

joanymanjarres

pakitina81

atlasexperiment · Follow

Original audio

atlasexperiment · Global Greetings from the ATLAS Experiment @CERN!

Join us on a linguistic journey as 12 summer students from different corners of the world working on the ATLAS Experiment say 'hi' in their native languages!

From 'Hola' to 'Namaste' and 'Ciao' to 'Konichiwa,' diversity and discovery unite us all! Meet the students in our link in bio.

#studyabroad #PhysicsCareers #cern #ParticlePhysics #ScientistLife #PhysicsEducation

aaravmandee That's amazing! Are all these undergrads?

gerganaphysics

balaram\_singh12 I am working on alice data ...rn i am in my masters ..

student Q&A

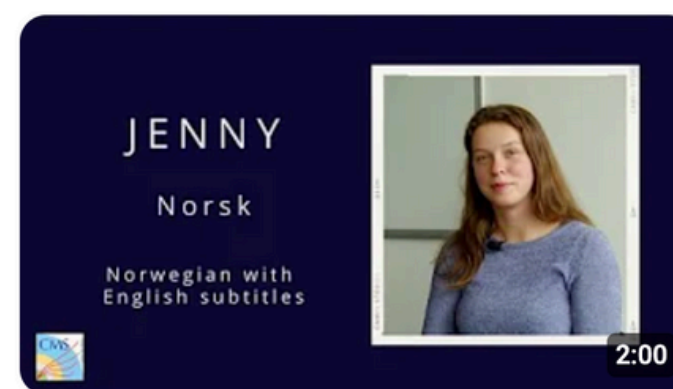
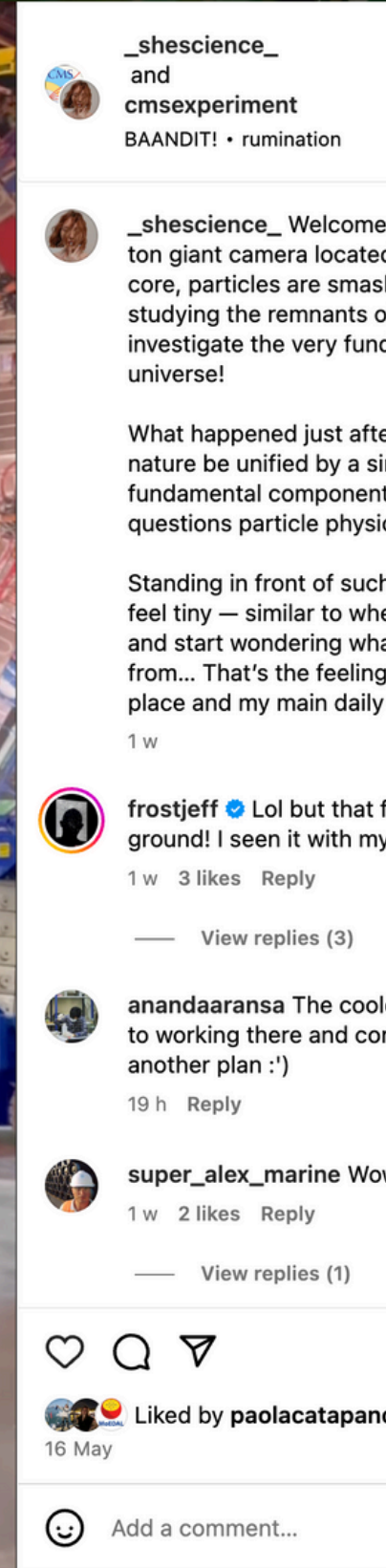
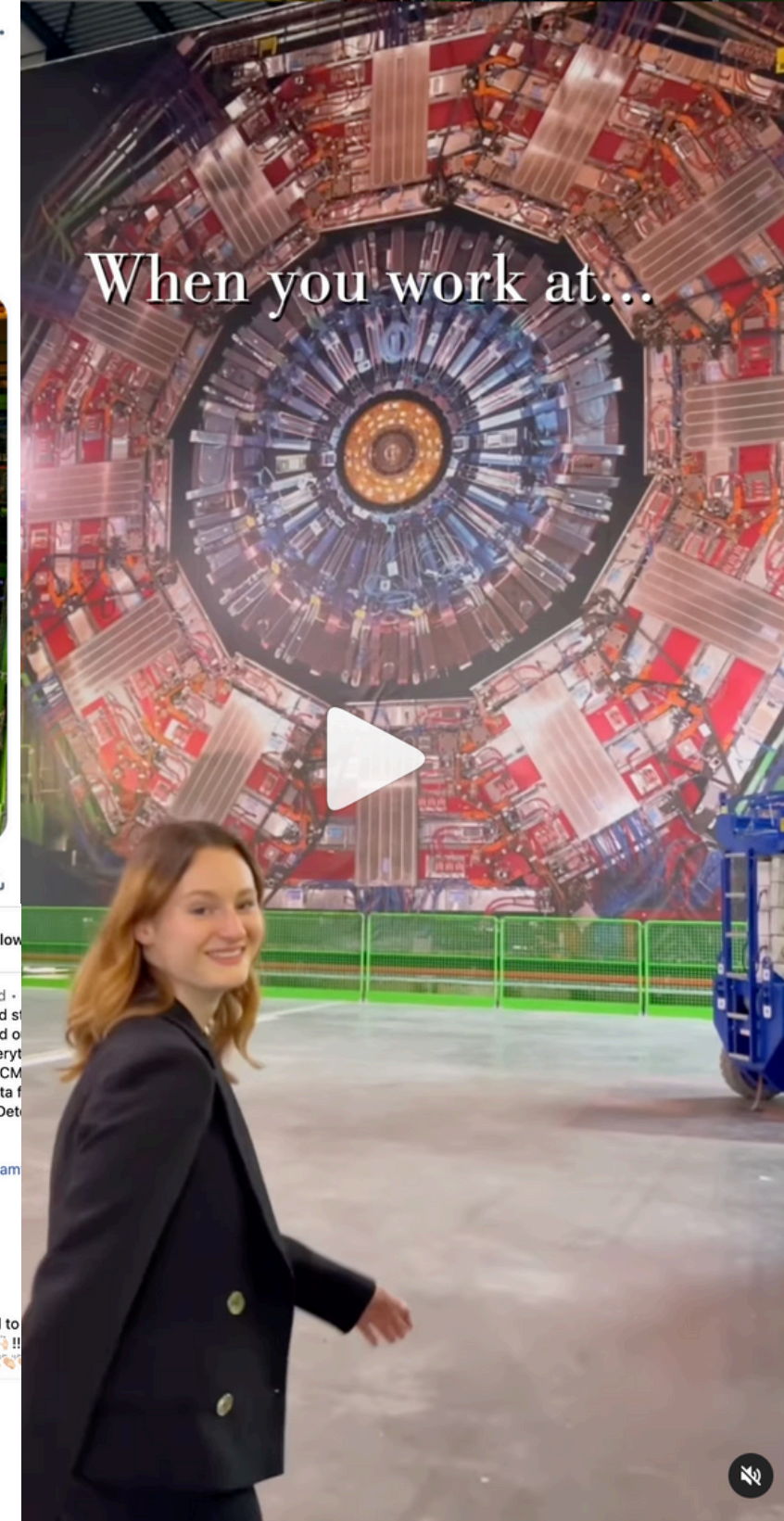
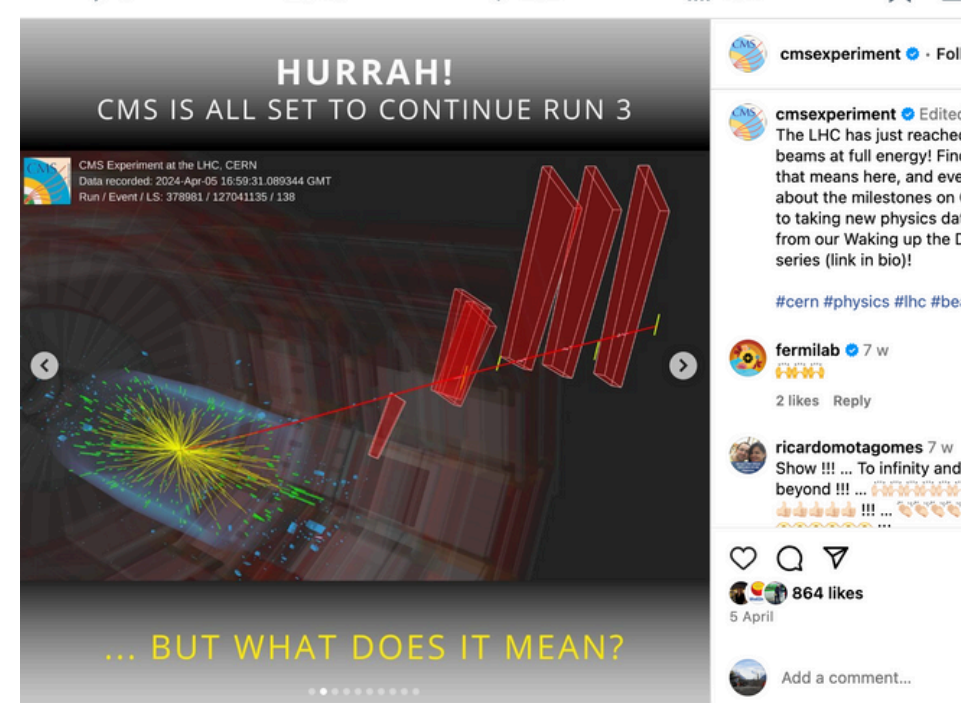
We interviewed ATLAS students and this is what happened

# CMS

- highlight physics results, the many beautiful parts of the detector, and giving airtime to the diversity of the collaboration & the different labs
- looking to create more collaboration posts with other CMS-associated accounts and influencers who create content about CMS
- just launched TikTok account with dedicated content and intense posting schedule in the first month

## TEAM

- core CMS communications team (2 comms officers + student intern (until Sept))



CMS women - Jenny



CMS Women - Chayanit



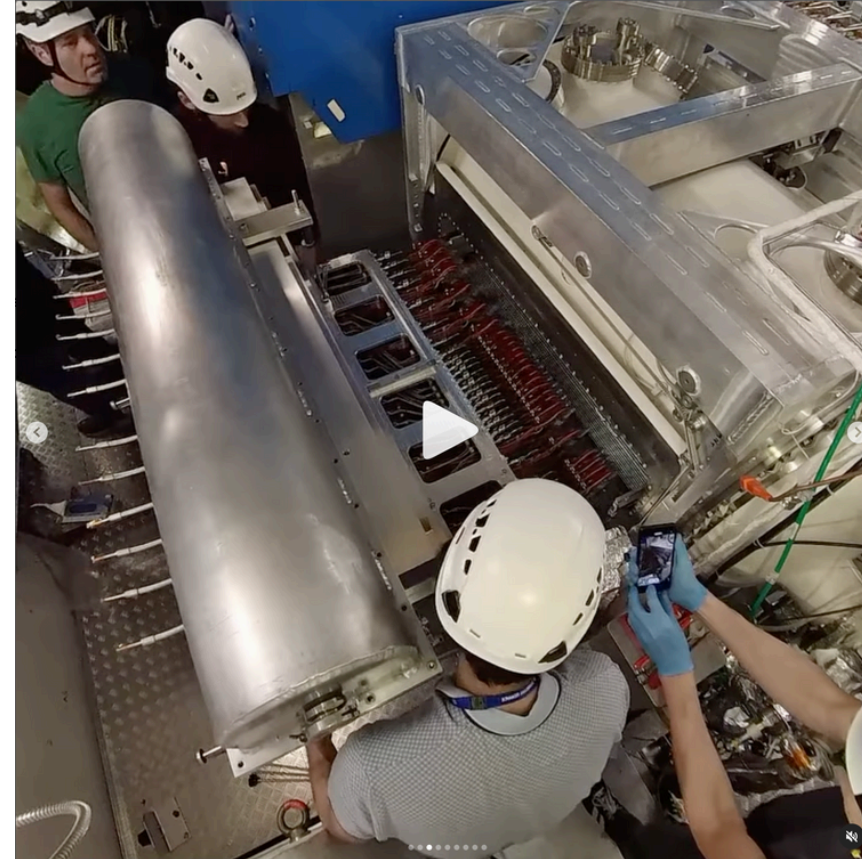
CMS Women - Freya

# LHCb

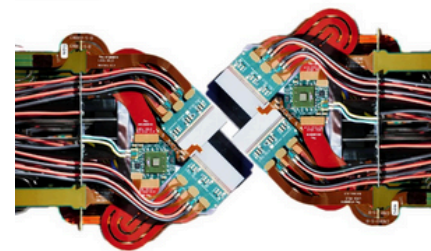
- giving updates on important events, detector upgrade journeys as well as highlights the most important physics results
- primarily focused on Twitter and Instagram
- mix of video and photo-driven content
- recent effort into making posts on Instagram uniform, using mainly the official LHCb colours and font, in a way trying to "brand" the experiment

## TEAM

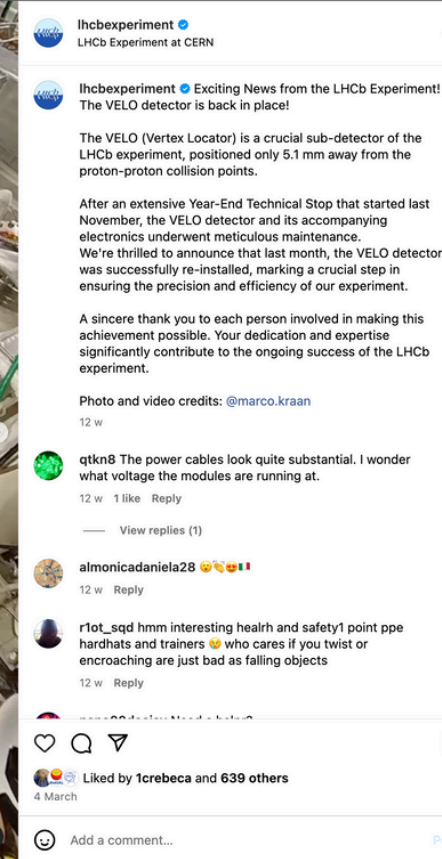
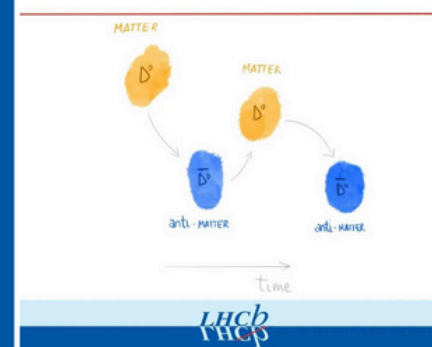
- LHCb members: 2 Postdocs and 3 PhD students



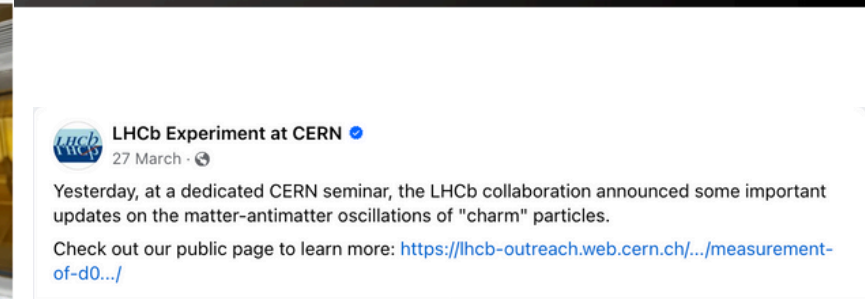
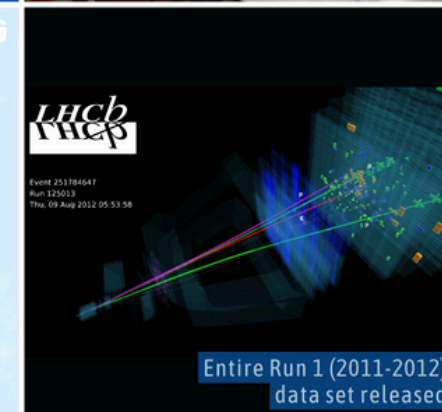
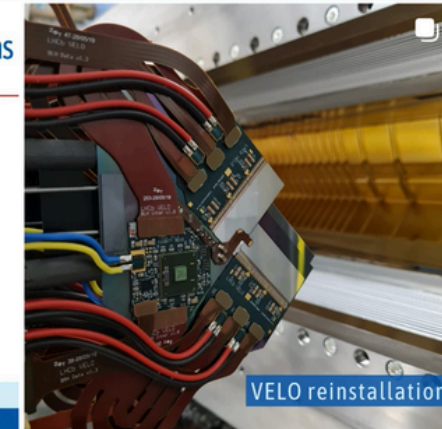
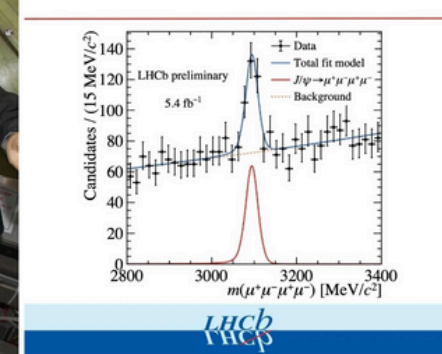
VELO closing procedure



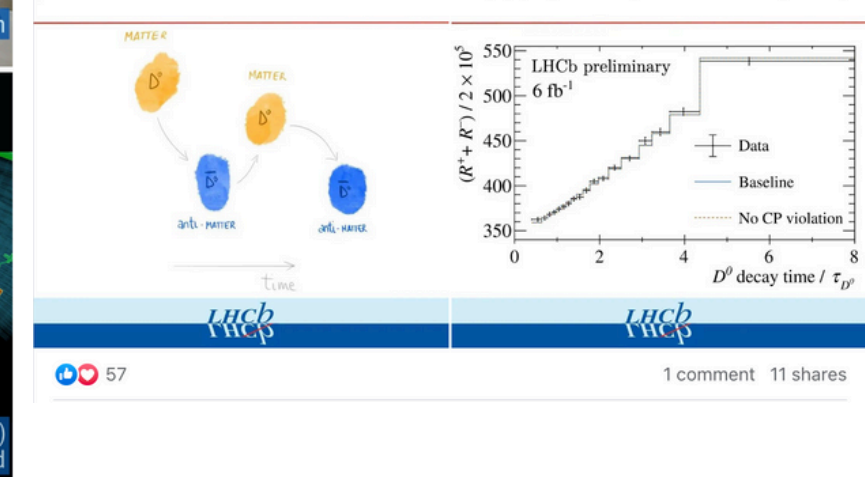
Charm matter-antimatter oscillations



Observation of  $J/\psi \rightarrow \mu^+ \mu^- \mu^+ \mu^-$



Charm matter-antimatter oscillations Charm oscillations at LHCb



# Shared Challenges

Few resources to dedicate solely to social media.

Extreme challenges with misinformation/conspiracy theories around CERN and LHC.

New content styles (videos) preferred by algorithms are very time consuming.

Challenge balancing scientific accuracy with engaging content.

Challenge balancing the need for human-driven content with appropriately representing the collaborative nature of LHC experiments.





# What can we do differently?

How do we pick the best platforms to expand to? How do we pick which platforms to skip?

How can we improve collaboration with and promotion of institutes/labs other than CERN?

How can LHC experiments work together to boost all our viewerships?

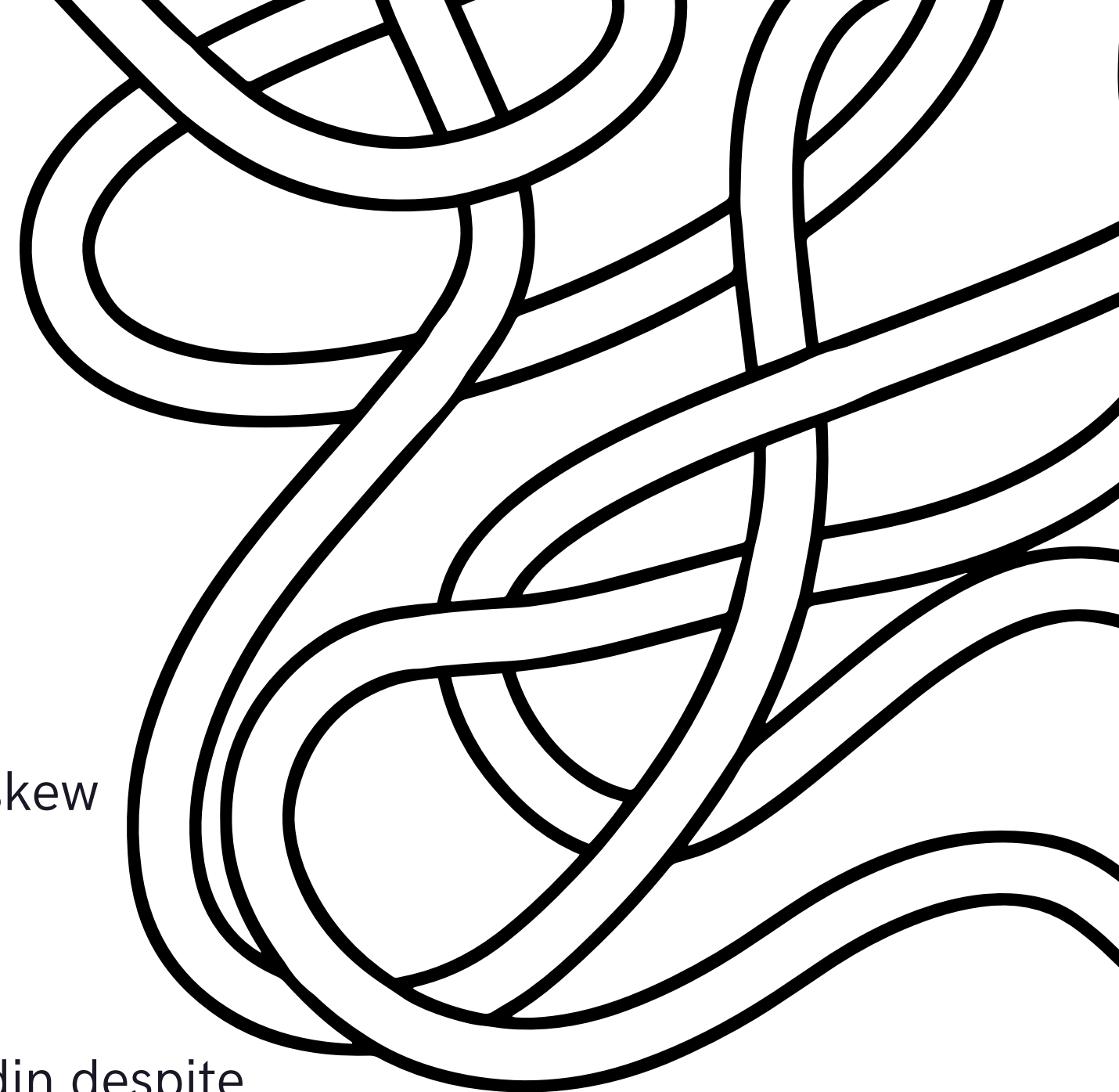
Aside from engagement style metrics, is our aim to simply more followers? Or is it to cater to the current followers in a deeper way?



**BACKUP**

# Audiences/Platforms

- Across experiments:
  - General Public
  - Institutions
  - Students
  - Professionals/Physicists
- Age, gender and profession are all platform dependent. All platforms skew towards heavily male audiences, with Instagram skewing most female.
  - CMS found dedicated campaigns helped increase female reach.
- Platform notes:
  - ATLAS & CMS both have active and dedicated audiences on LinkedIn despite relatively low follower counts.
  - ATLAS found strong engagement on Threads, again despite relatively low followers.
  - ALICE found excellent success in shared posts with CERN Courier & CERN accounts.





# Followers

	FB	IG	X	OTHER
ALICE	22k	22k	36k	Linkedin: 350
ATLAS	44k	64k	98k	Linkedin: 7.5k Tiktok: 48k Threads: 9.7k
CMS	30k	29k	58k	Linkedin: 6k
LHCB	20k	17k	31k	X physics: 7.3k

