

LHC EXPERIMENTS COMMUNICATION & ENGAGEMENT WITH NEW AUDIENCES

4th Annual Large Hadron Collider Physics Conference 2016, Lund

Despina Hatzifotiadou
INFN Bologna – ALICE outreach

On behalf of ALICE, ATLAS, CMS and LHCb outreach



COMMUNICATION

Communication is essential to the scientific process

➤ TO WHOM do we communicate?

Who is THE TARGET?

➤ WHY do we communicate?

What are THE GOALS?

➤ WHAT do we communicate?

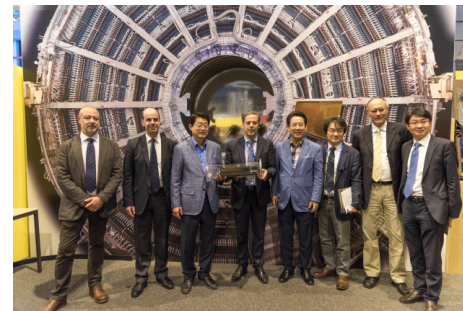
What are THE MESSAGES?

➤ HOW do we communicate?

What are THE METHODS / TOOLS?

THE TARGET

- General public
- Stakeholders
- Students and teachers
- The scientific community
- The media



THE GOALS

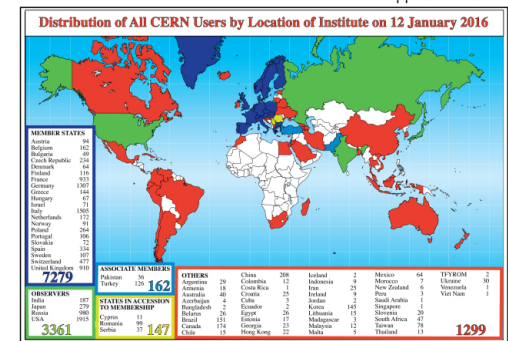
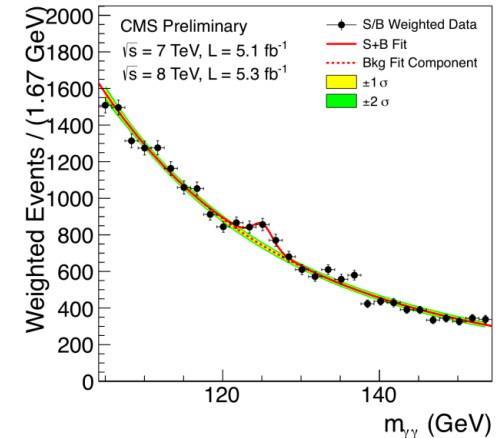


- Be open – demystify scientific research
- Inform public – increase awareness (scientific literacy)
- Inform public – appreciation of our work
- Inspire youth – prepare next generation of scientists
- Ensure (continuation of) support and funding
- Tell taxpayers how their taxes are used
- Inform media (strong amplification factor)



THE MESSAGES

- Necessity of science in society
- Role/impact of science in society
- Scientific method & results
- Enthusiasm and love of science
- Excitement of discovery
- Science is for all
- Collaboration across borders
- Diversity (eg female role models to increase female involvement)



THE METHODS & TOOLS

➤ “TRADITIONAL”

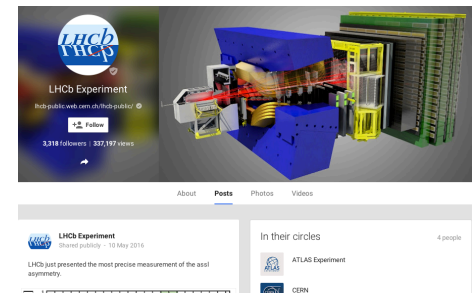
- Visits, Exhibitions, Public talks
- Events (European Researchers Night, Open Days, Science Fairs)

➤ “ONLINE (web-based) “

- Web pages
- Blogs / Newsletters
- Social Media
- Virtual Visits

➤ “HANDS-ON” / EDUCATIONAL

- Masterclasses
- CERN Open Data portal
- Citizen Science (ATLAS@home, Higgs Hunters, Higgs Machine Learning)



PUBLIC WEB PAGES, NEWS(LETTERS), BLOGS..



Discover
About, Physics,
Collaboration, Detector

Resources
Multimedia, Activities,
Education, Visit, Press

Updates
News, Physics Briefings,
Blog, Statements



Discover
About, Physics,
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ATLAS Blog

Spring celebrations in Pisa as the LHC restarts

PP@LHC is an Italian conference with important contributions by foreign institutes, focused on the proton-proton physics performed at the LHC by the ATLAS, CMS and LHCb experiments. The aim of this year's edition was not only to give an overview on the current status of LHC research, but to focus on future challenges with the upcoming new data.

[Read more ->](#)

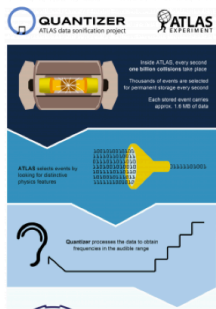


ATLAS News

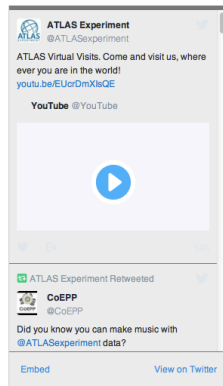
Make music with ATLAS data

From techno beats to classical melodies, from jazz swinging to pop and rock riffs – the ATLAS experiment can play them all. Thanks to **Quantizer**, a platform that translates ATLAS events into notes and rhythms, one of the most complex scientific instruments in the world will not only search for new physics, but also generate music.

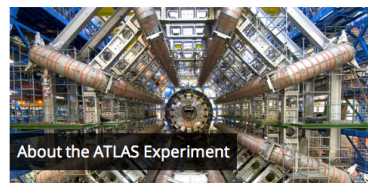
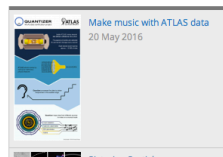
[Read more ->](#)



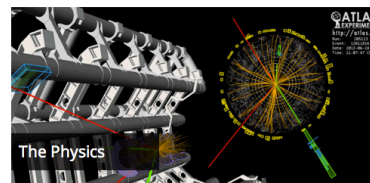
Recent Tweets



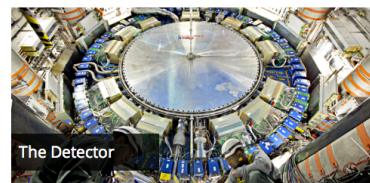
Recent News



One of the four major experiments at the Large Hadron Collider at CERN



Exploring the basic building blocks and fundamental forces of nature



Updates

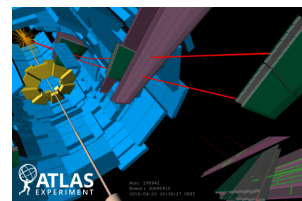
Latest [News](#), [Physics Briefings](#), [Collaboration Blog](#), and [Press Statements](#) from ATLAS.

Press Statement

Tags: 13 TeV, Run2

ATLAS continues to explore the 13 TeV frontier

By 9th May 2016



Geneva, 9 May 2016. ATLAS is back and better than ever! With 13 TeV beams circulating in the Large Hadron Collider, the ATLAS experiment is now recording data for physics. This milestone marks the start of the second year of "Run 2" as ATLAS continues its exploration of 13 TeV energy frontier.

[View](#) [Edit](#)

ATLAS News

Meet 7 inspiring women from the ATLAS experiment

Women play key roles in the ATLAS Experiment: from young physicists at the start of their careers to analysis group leaders and spokespersons of the collaboration. Celebrate **International Women's Day** by meeting a few of these inspiring ATLAS researchers.

[Read more ->](#)



Discover
About, Physics,
Collaboration, Detector

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Updates

Latest [News](#), [Photo Essays](#), [Physics Briefings](#), [Collaboration Blog](#), and [Press Statements](#) from ATLAS.

Share



New insight into the proton-proton ridge

ATLAS has submitted a paper to *Physical Review Letters* that provides further insight on the origin of the ridge

2nd October 2015

The new results confirm that the ridges in proton-proton, proton-nucleus, and nucleus-nucleus collisions have a similar origin. The results also show that the observed weak dependence on the number of charged particles and the centre of mass energy should provide strong constraints on the mechanisms responsible for producing the ridge in proton, proton, and, maybe, proton-nucleus collisions.

The term "ridge" is commonly used to refer to a feature observed in measurements of two-particle angular correlations in proton-proton, proton-nucleus, and nucleus-nucleus collision as a function of $\Delta\phi$. This is the difference between the azimuthal angles – the angles in the plane transverse to the beam – of the particles and $\Delta\eta$ – the difference between the pseudorapidities of the two particles. Pseudorapidity is related to the angle the particle makes with respect to the beam. The ridge is an enhancement seen in the correlation function at small $\Delta\phi$ that extends over the measured $\Delta\eta$ range (see Figure 1).

The ridge in proton-nucleus and nucleus-nucleus collisions is known to result from a sinusoidal modulation of the single-particle azimuthal angle distributions that produce a corresponding modulation in the two-particle $\Delta\phi$ distribution. In nucleus-nucleus collisions, this single-particle modulation is believed to result from collective expansion of the hot, dense medium created in the nuclear collisions. The possibility that similar collective expansion is responsible for the ridge in proton-nucleus collisions is currently under debate. Prior to the new ATLAS result, it was not known whether the ridge in proton-proton collisions arose from a similar single-particle modulation.

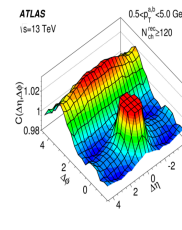


Figure 1: Two-particle correlation function in 13 TeV pp collisions with $N_{ch} \approx 120$. The ridge is seen as the enhancement at $\Delta\phi$ near zero that extends over the full range of $\Delta\eta$. (Image: CERN)

25 May 2016: The VELO team is the fastest.



Last week the LHCb Running Team, VELOcity, won the first place in its category (senior) during the traditional CERN Relay Race.

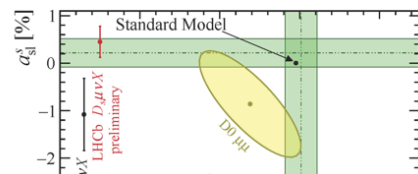
Contrary to statements of other competitors, based on the team's name, the LHCb team was not using bicycles to win the race. The **VELO** is the name of the LHCb Vertex Locator, the precise silicon detector located around the proton-proton collision point. The detector has been "running" successfully since the LHC start up. Its winning formula of precision measurements and proximity to the beam line allows it to locate the point (vertex) precisely where the beauty particles decay, as seen in many images on this page. Today's race has shown that not only the VELO detector is on track to chase down more physics, but the VELO team is the fastest going.

click the image to see better the winner's smiling faces

9 May 2016: The most precise measurement of the a_{sl}^{S} asymmetry.

[$a_{\text{sl}}^{\text{S}} = (0.45 \pm 0.26 \pm 0.20)\%$ preliminary]

Last week at the 16th International Conference on B-Physics at Frontier Machines, "**Beauty 2016**", Marseille, France, the LHCb collaboration presented the updated result of a measurement of the semileptonic asymmetry, a_{sl}^{S} , related to a difference between a probability of a beauty meson, B^0 , to oscillate into its antimatter partner, \bar{B}^0 , and a probability of the reverse process. (An introduction to beauty and charm oscillations can be found in the [7 November 2012](#) news item.) Any difference in this probability would be a manifestation of CP-violation, which is the difference between the properties of matter and anti-matter. The label "s" indicates decays of B^0 mesons composed of anti-beauty \bar{b} and s quarks, while "sl" (semileptonic) indicates that leptons, in this case muons, are present among decay products. The full run 1 data sample of 3 fb^{-1} was used to obtain this update of the 1 fb^{-1} 2012 [measurement](#). The LHCb result is the most precise measurement of a_{sl}^{S} to date and is consistent with the value predicted in the framework of the Standard Model. For this particular quantity the amount of CP-violation is expected to be tiny and hence the predicted value of a_{sl}^{S} in the Standard Model is very small. Therefore the possible contribution of as yet undiscovered effects, which help to drive the B^0 - \bar{B}^0 oscillations, could lead to significant changes in a_{sl}^{S} . The precise LHCb result allows constraints to be placed on the properties of these possible new effects, and points the way for future theoretical and experimental studies.

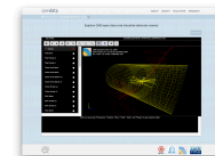


The image shows the overview of the most precise measurements of a_{sl}^{S} and a_{sl}^{d} . The a_{sl}^{d} results were obtained from analogous measurements of B^0 - \bar{B}^0 oscillations. The new LHCb result is shown, as well as the LHCb a_{sl}^{d} 2014 [result](#). The horizontal and vertical bands indicate the naive averages of pure a_{sl}^{S} and a_{sl}^{d} measurements obtained by different experiments. These averages are consistent with the small values predicted by the Standard Model and show no evidence for new physics effects.

General News

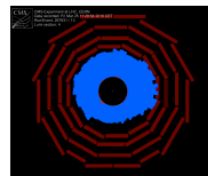
CMS releases new batch of research data from LHC

2016-04-22, by Achintya Rao



The LHC is back online

2016-03-25, by Anonymous (not verified)



CMS is never idle

2015-03-27, Andre Tinoco Mendes

New CMS spokesperson: "An honour to be chosen to lead a spectacular collection of people"

2016-03-16, Achintya Rao

"Move over Mr Einstein!" A scientific experiment ignites creativity and dialogue

2016-02-26, Anonymous

Physics Awards for the "Founding Fathers" of CMS

2015-07-21, Cms People

CMS is preparing for high-luminosity run at 13 TeV

2015-06-14, Tiziano Camporesi

CMS embarks on data collection at 13 TeV

2015-06-03, Anonymous

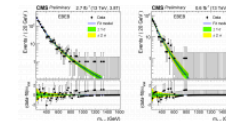
CMS recognizes achievements of young collaborators

2014-12-01, Jim Virdee

Physics News

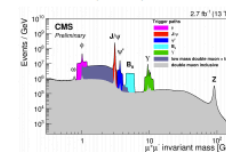
CMS intensifies search for new physics, closes in on H(125) at 13 TeV

2016-03-18, by Cms People



CMS presents new 13TeV results at end-of-year jamboree

2015-12-17, by Achintya Rao



CMS presents first results with 13 TeV at 2015 EPS-HEP Conference

2015-07-27, Cms People

Recent results in the search for supersymmetry

2014-07-24, Paris SpHica

CMS closes major chapter of Higgs measurements

2014-07-03, Tiziano Camporesi

LHC collides protons at 13 TeV to tune accelerator

2015-05-21, Anonymous

A very rare decay has been seen by CMS

2015-05-13, Achintya Rao

LHC delivers low-energy collisions to CMS and other experiments

2015-05-05, Anonymous

Quark Matter 2014: the full crop from CMS

2014-06-12, Matthew Nguyen

Quark Matter 2014: news from CMS

2014-05-27, Christof Roland

➤ News from the Collaboration, Physics News, ... appear on first (public) page



ALICE MATTERS

A Large Ion Collider Experiment**ALICE**[Home](#)[Issues](#)[About](#)[Contact](#)

Central shifts in the ALICE Run Control Centre

In four consecutive issues of ALICE Matters we will present the central shifts through the eyes of the shifters and the run coordinators of the systems they are responsible for.



Top Stories

Central shifts in the ALICE Run Control Centre

In four consecutive issues of ALICE Matters we will present the central shifts through the eyes of the shifters and the run coordinators of the systems they are responsible for.

Thresholds of matter

Between 25 April and 10 May 2016, both CERN employees and visitors had the chance to enjoy the exhibition "Thresholds of matter".

News from the ALICE Run Control Centre

May was an eventful month both for ALICE and for the Large Hadron Collider (LHC).

More stories

[Official visits in ALICE](#)[New PhD with ALICE](#)

Interviews & Features

[Focus on: Chiara Bianchin](#)[Focus on: Deepa Thomas](#)[Focus on: Michal Meres](#)

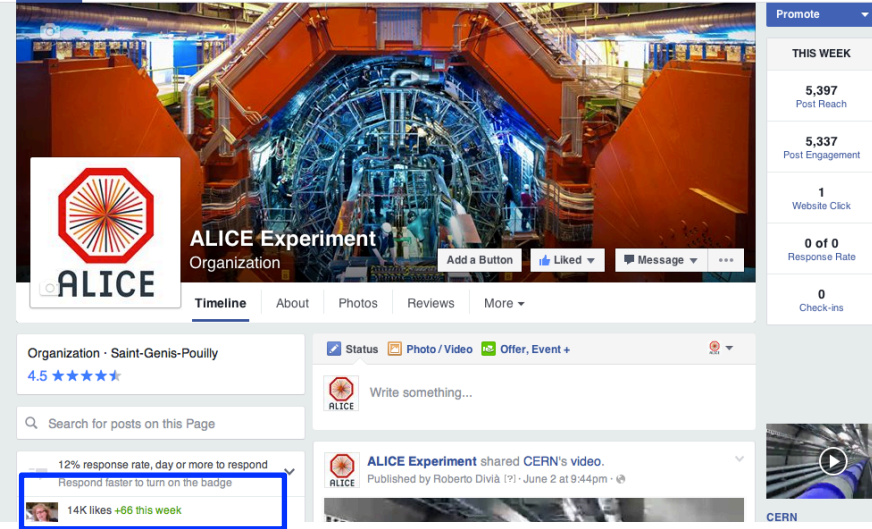
Popular Articles

[ALICE: is cold nuclear matter really cold? \(6,890\)](#)[Season's Greetings \(5,582\)](#)[Interview with Krishna Rajagopal \(7,606\)](#)

Recent Comments

[Congratulations](#) 1 month 2 days ago[Discoveries in Alice](#) 4 months 3 days ago[events scanning](#) 4 months 3 weeks ago

SOCIAL MEDIA



ALICE Experiment Organization

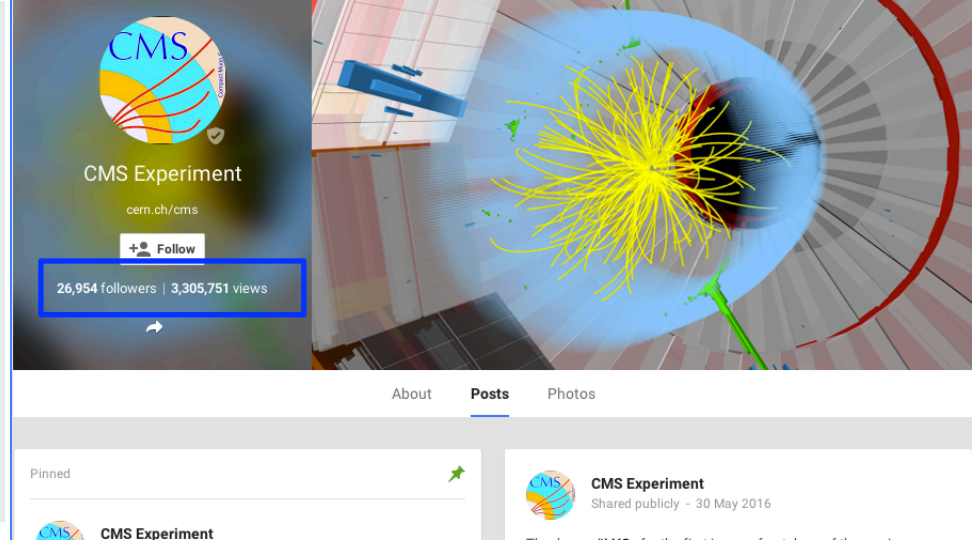
Organization · Saint-Genis-Pouilly
4.5 ★★★★★

12% response rate, day or more to respond
Respond faster to turn on the badge
14K likes +66 this week

THIS WEEK

- 5,397 Post Reach
- 5,337 Post Engagement
- 1 Website Click
- 0 of 0 Response Rate
- 0 Check-ins

ALICE Experiment shared CERN's video.
Published by Roberto Divià · 1?1 · June 2 at 9:44pm · 🌐



CMS Experiment
cern.ch/cms

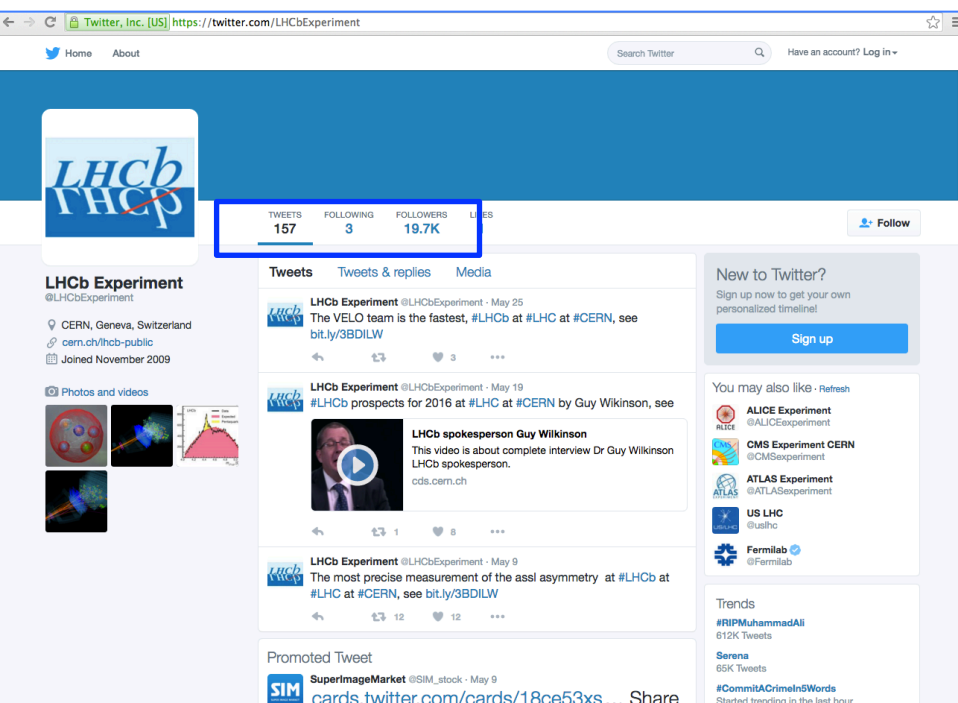
26,954 followers | 3,305,751 views

ATLAS Experiment at CERN
ATLAS is a particle physics experiment on the LHC at CERN. It is designed to explore the basic building blocks and fundamental forces of nature. atlas.cern

75 posts | 1,145 followers | 5 following

<https://www.facebook.com/ALICE.EXPERIMENT/>

<http://www.google.com/+CMSEXperiment>



LHCb Experiment
@LHCbExperiment

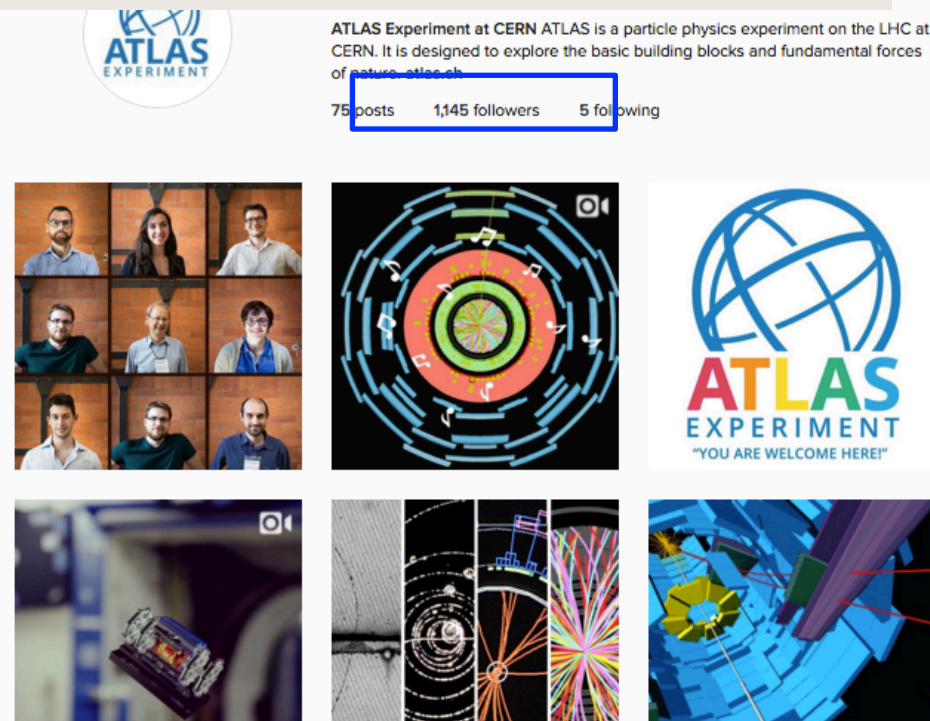
CERN, Geneva, Switzerland
cern.ch/lhcb-public
Joined November 2009

TWEETS 157 | FOLLOWING 3 | FOLLOWERS 19.7K

LHCb Experiment @LHCbExperiment · May 25
The VELO team is the fastest, #LHCb at #LHC at #CERN, see bit.ly/3BDILW

LHCb Experiment @LHCbExperiment · May 19
#LHCb prospects for 2016 at #LHC at #CERN by Guy Wilkinson, see bit.ly/3BDILW

LHCb Experiment @LHCbExperiment · May 9
The most precise measurement of the asl asymmetry at #LHCb at #LHC at #CERN, see bit.ly/3BDILW



ATLAS EXPERIMENT

ATLAS is a particle physics experiment on the LHC at CERN. It is designed to explore the basic building blocks and fundamental forces of nature. atlas.cern

75 posts | 1,145 followers | 5 following

<https://twitter.com/lhcbexperiment/>

<https://www.instagram.com/atlasexperiment/>

CMS Voices
@CMSVoices

A new voice from @CMSExperiment every month! June 2016: @alefisco, an Ecuadorian graduate student at @RutgersU, who is interested in exotic searches and jets.

📍 CERN / Worldwide / Vidy
🌐 cms-voices.web.cern.ch/cms-voices/ale...

📷 138 Photos and videos

Tweets Tweets & replies Media

Pinned Tweet

CMS Voices @CMSVoices · Jun 1
[admin] Your CMS Voice for June 2016 is @alefisco, a graduate student at @RutgersU. Please give him a warm welcome! #outreach

CMS Voices @CMSVoices · Jun 3
of course was #akward when we finally met and I realize the person was a man hahahaha #trueStory #globalCollaboration

CMS Voices @CMSVoices · Jun 3
or even often you confuse their genre :D haha long time ago I was exchanging several emails with this person that I was convince was a woman

CMS Voices @CMSVoices · Jun 3
making a nice #iceBreaker when you finally meet them in person :D we often recognize first the voice and then the face

@CMSVoices

- Controlled by a different CMS member every month
- Allows to show the flavours and colours in a large collaboration
- Enables members of the public to engage directly with a real CMS person instead of tweeting @CMSExperiment without response

CMS VOICES [HOME](#) [ABOUT](#) @CMSvoices on Twitter

Latest Voices



- Interviews
- Videos from detector installation
- Physics topics
- Educational material

<https://www.youtube.com/c/alicematters>

<https://www.youtube.com/c/cmsexperiment>

<https://www.youtube.com/user/TheATLASexperiment>

an example : Flying over ALICE

Video done with a drone flying

- over the ALICE site
- down the shaft
- in the cavern,
- over the L3 magnet
- over the muon arm

<https://www.youtube.com/watch?v=yWBWzIUCNpw> 62802 views



NBC NEWS HOME TOP VIDEOS ONGOING: ISIS TERROR IMMIGRATION REFORM
U.S. WORLD LOCAL POLITICS HEALTH TECH SCIENCE POP CULTURE BUSINESS INVESTIGATIONS SPORTS MORE ▾

Get a Drone's-Eye View of the Large Hadron Collider

news.discovery.com/space/take-a-drone-ride-into-the-guts-of-an-lhc-detector-video-150306.htm

GOLD RUSH BOLDLY GO Presented by **Norton** See what ordinary people can do when they go boldly, not blindly. WATCH THEIR STORIES ▸

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- Cassini's 10th Year: Recent Saturn Mind Blowers: Photos

SPACE **Take a Drone Ride into the Guts of an LHC Detector: Video**

www.eejournal.com/archives/fresh-bytes/take-a-drone-tour-of-an-lhc-detector

Electronic Engineering **JOURNAL** techfocus PCB DESIGN

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fresh bytes

Back to Fresh Bytes Main

Take a drone tour of an LHC detector

by Laura Domela

March 09, 2015 at 9:12 AM



More than 18 k viewings in 12 days

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TRENDING: CES 2015 // Ebola Outbreak // Military & Spy Tech // 3D Printing // OurAmazingPlanet //

Wow! Watch a Drone Fly Through the World's Largest Atom Smasher

by Shannon Hall, Staff Writer | March 04, 2015 07:40am ET

DRONELIFE.com

HOME NEWS BEFORE YOU BUY BUY A DRONE HIRE A DRONE

Watch a Drone Fly Through the World's Largest Atom Smasher

NEWS TECHNOLOGY March 4, 2015 by DRONELIFE News - No comments

www.cnet.com/uk/news/take-a-drone-tour-of-an-lhc-detector/

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Europa-Genießer-K... p.p. ab CHF JET

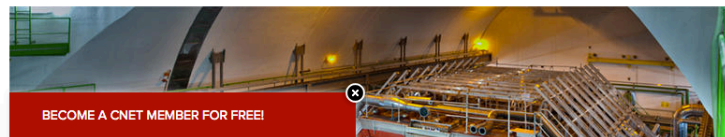
CNET > Sci-Tech > Take a drone tour of an LHC detector

Take a drone tour of an LHC detector

As the Large Hadron Collider gears up to resume experiments, the team at the ALICE detector has released a drone video of the facility.

by Michelle Starr @riding_red / 9 March 2015 3:30 am GMT

1 / 282 / 342 / 4 / 8+ / more +



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VIRTUAL VISITS

ATLAS Virtual Visits

- Videoconference (+public webcast, + video recording)
- physicist in ATLAS Control Room (speaking the virtual visitors' language)
- Remote location(s) (typically high school class, University, local event)
- Introduction to CERN, LHC, ATLAS, particle physics
- Virtual tour of the Control Room
- Explanations about what is happening (shifts, data-taking,...)
- Q&A session: interaction with researcher highlights of the virtual visit



ATLAS virtual visit with Birzeit University, Palestine



ATLAS virtual visit with High School in Lala, Greece

http://atlas-live-virtual-visit.web.cern.ch/atlas-live-virtual-visit/ atlas vir

Virtual Visits

ATLAS EXPERIMENT VIRTUAL VISITS

The ATLAS Experiment at CERN is one of the largest most complex scientific instruments ever constructed. It is designed to explore the inner universe, advancing our understanding of the basic building blocks and fundamental forces of nature.

Five thousand physicists from about 180 institutions in 38 countries around the world participate in ATLAS. When the LHC is in operation, up to 600 million protons collide every second inside the detector. ATLAS Virtual Visits gives the public a unique opportunity to be part of this great scientific adventure.

Using web-based video conferencing tools, participants talk with an ATLAS physicist, receive a tour of the control room, and get answers to their questions.

Next Event:

8 June

London

Find out what it's like to be a physicist and life at CERN

ATLAS Experiment
Discover one of the world's greatest

Future Events
A list of upcoming Virtual Visits

Past Events
Some recordings from past Virtual Visits

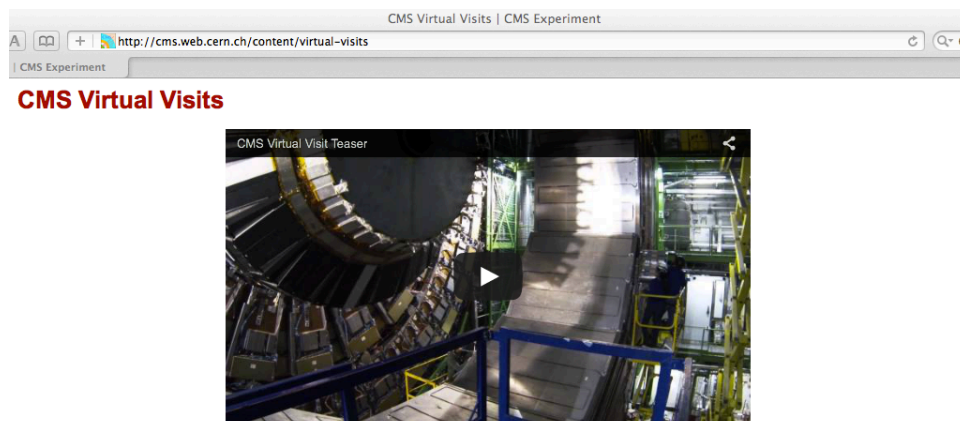
Book Your Visit
How to organise your own Virtual Visit

About ATLAS
Some images to prepare your visit.

Visit CERN
Come see the world's largest particle physics

- Digital Communication Award 2012 for Best Online Event to ATLAS outreach
- Finalists for European Excellence Award 2013
- 40 countries reached all over the world, > 250 virtual visits

CMS Virtual Visits



The CMS Collaboration at CERN is a global scientific endeavour that is pushing the boundaries of fundamental research. CMS Virtual Visits offer students, teachers and the general public a unique opportunity to explore the experimental site of the CMS detector. The tours are guided by CMS scientists, who will explain the physics and technology behind the experiment and answer questions from the remote visitors.

For whom?

- School or university classes
- Exhibition visitors
- Conference participants

With scientists from around 80 countries in our collaboration, we are doing our best to provide tours in your native language.

How to participate?

Check-list for remote locations interested in participating in the virtual visit:

1. Equipment:
 - recent computer with a (preferably wired) network of minimum 1.0 Mbps
 - video projector and a sufficiently dim room
 - it is highly recommended to have a microphone on a long cord or a radio microphone and a noise cancellation unit
2. Fill out this form to reserve a date for your virtual visit.

- 14.7 K participants
(September 2014 - May 2016)
- Korea and New Zealand coming up



CMS virtual visit with High School in Poland



LHCb virtual visit during International Masterclasses

After a short presentation, virtual visit of the ALICE Run Control Centre and lots of questions, the children played music, sang songs and danced to show their appreciation



ALICE virtual visit with Elementary School in Greece

- Allow access to new audiences who cannot visit CERN due to geographical or economic limitations
- Engage with the world of research and share the excitement

and some more..

PHYSICS OF MUSIC AND MUSIC OF PHYSICS

The
PHYSICS
OF music
MUSIC
of physics

Montreux | 12 July | 17:00

Donald Sinta Quartet performing an original piece by Roger Zare called "LHC", synchronised to the discovery of the Higgs boson

Domenico Vicinanza, DANTE/GÉANT (Cambridge, UK) and his sonifications of data from the LHC and the Voyager missions

The Cosmic Piano of the ALICE Experiment at CERN

A duet between jazz pianist Al Blatter and the Cosmos

Logos for CERN, Montreux Jazz Festival, and a QR code.

2014

the **PHYSICS** *of* **MUSIC**
AND
the **MUSIC** *of* **PHYSICS**

MONTREUX - PETIT PALAIS
THURSDAY, 9 JULY, 15:00
WORKSHOP

Robert Kieffer, CERN Beam Instrumentation Group

Gaëtan Parsehian, Laboratoire de Mécanique et d'Acoustique, CNRS, Marseille

Juliana Cherston, Massachusetts Institute of Technology Media Lab

Ewan Hill, University of Victoria, TRIUMF, ATLAS Experiment at CERN

Domenico Vicinanza, Anglia Ruskin University, GEANT Association

Al Blatter, Pianist


Logos for CERN, Montreux Jazz Artists Foundation, and a QR code.

2015

ASK ME ANYTHING (AMA) on social media platform reddit

Reddit : entertainment, social news networking service, and news website.
Registered community members can submit content, such as text posts or direct links.


AMA on Reddit : During a defined time period reddit users ask questions to a panel
The members of the panel answer




reddit **ASKCERN** [overview](#) [comments](#) [submitted](#) [gilded](#)

sorted by: **new** ▼


↑ 4587 ↓


 A month ago we made available publicly via the CERN Open Data Portal 300 TB of research data from the CMS Experiment at CERN's Large Hadron Collider. AUA about our open data! [CERN AMA](#) (self.askscience)

 submitted 16 days ago * by askCERN to /r/askscience

492 comments share


↑ 5815 ↓


 ! We just broke a world record at the Large Hadron Collider, for the highest-energy human-made particle collisions. We're one step closer to physics data collection at 13 TeV. Ask us anything about what's in store at this new energy frontier. [Science](#) (self.IAmA)

 submitted 1 year ago * by askCERN to /r/IAmA 🌟

3061 comments share


↑ 4126 ↓


 ! A few days ago, CERN launched an Open Data Portal to publicly share data from the Large Hadron Collider. We are some of the scientists behind this project, working to make science more open globally. Ask Us (Almost) Anything about open data, open access, data preservation, big data and open science! (self.IAmA)

 submitted 1 year ago * by askCERN to /r/IAmA

634 comments share

↑ 3822 ↓

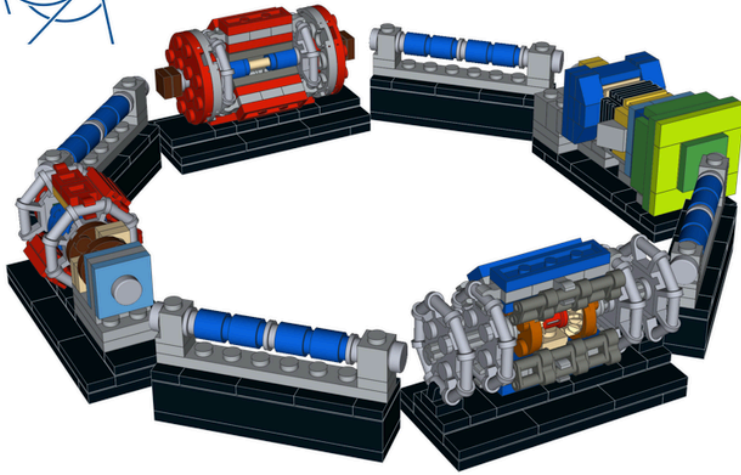
 ! We are scientists working at CERN, home of the Large Hadron Collider and birthplace of the World Wide Web! Ask Us (Almost) Anything! (self.IAmA)

 submitted 2 years ago * by askCERN to /r/IAmA 🌟 x2

2630 comments share



The Large Hadron Collider



<https://ideas.lego.com/projects/94885>



Build CMS from KAPLA (wooden blocks)
during local events

ALICE Papercraft | A 3D paper model of the ALICE Experiment

ALICE
A Large Ion Collider Experiment

ALICE Papercraft
A 3D paper model of
the ALICE Experiment
July 2013



Papercraft

A 3D paper model



English

Français

Deutsch

Italiano

Toys and games grab people's attention
and generate interest

...Instead of conclusion

- Public is following us – news, updates, blogs are appreciated
- Use huge potential of social media to engage new and wider audience
- ‘Private’ accounts on social media important – engagement in first person!
- Use resources on the web to help the communication process
- Virtual visits : powerful tool to engage –especially young people- across the globe
- Encourage/help schools in your country/town to arrange virtual visit
- Act as guide for virtual visits*

*Added benefit: virtual visits help develop/improve communication skills

ACKNOWLEDGEMENTS

ATLAS experiment

Claire Adam-Bourdarios
Steve Goldfarb
Kate Shaw
Katarina Anthony
Clara Nellist

CMS experiment

Marzena Lapka
Achintya Rao

LHCb experiment

Antonis Papanestis
Bolek Pietrzyk

THANKS FOR YOUR ATTENTION!