ATLAS Public Website

Evolution to Drupal 8

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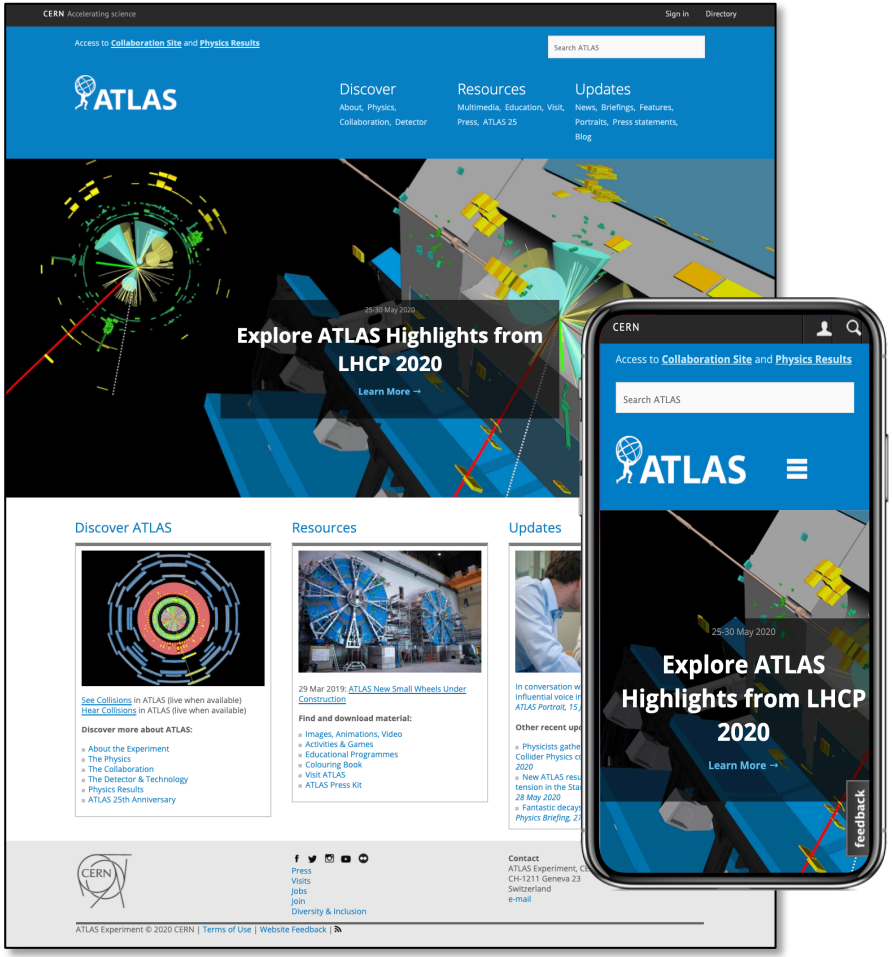
With significant input from: S. Goldfarb, K. Anthony, S. Mehlhase, C. Nellist

ICHEP 2020, Cyberspace

ATLAS Public Website

http://atlas.cern

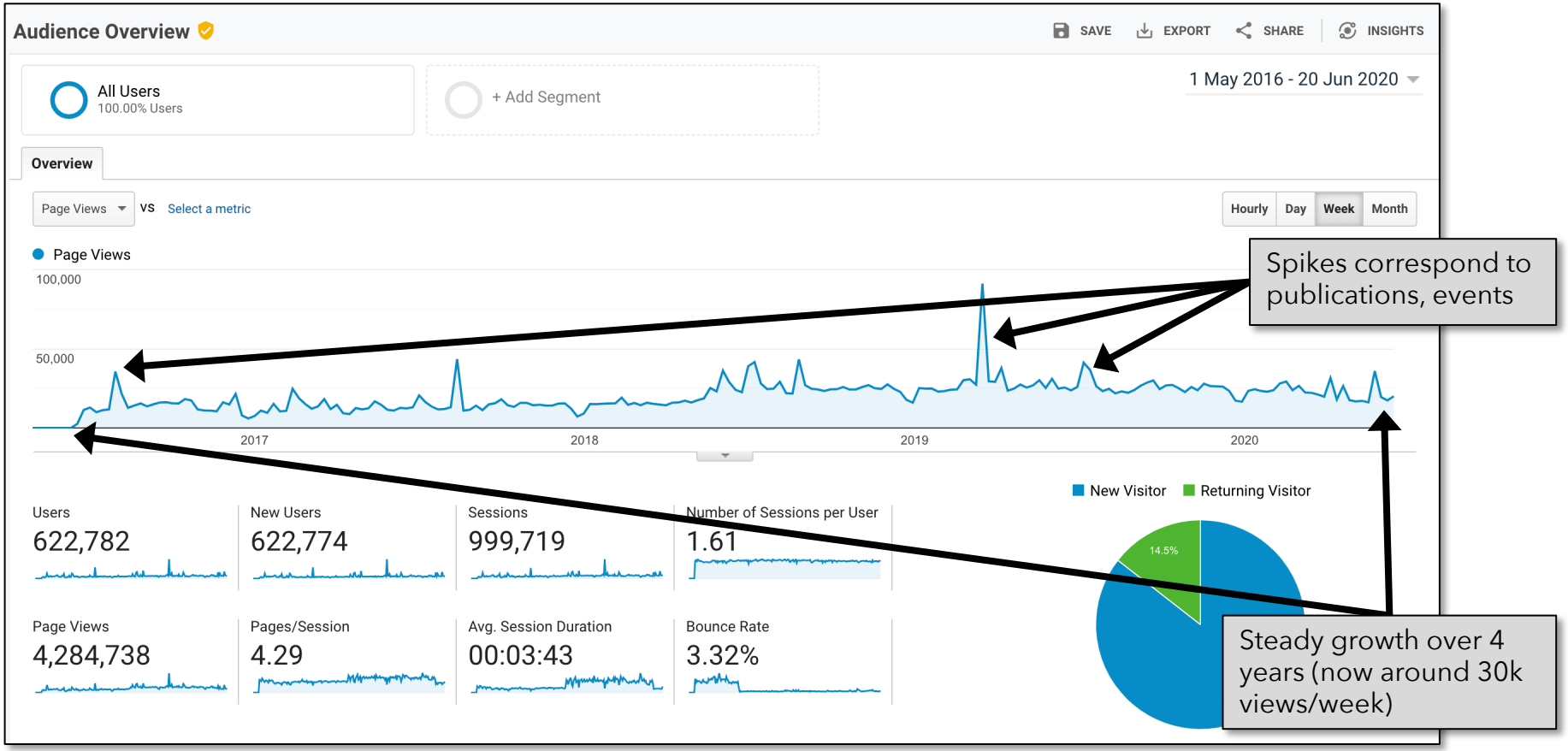


Public access to

- Descriptions of Experiment
- Educational Resources
- Updates (News, Briefings, Blog)

In Drupal since 2016

- Replaced original HTML site
- Developed in Drupal 7
- Maintained by ATLAS Communication Team


Audience Overview
SAVE
EXPORT
SHARE
INSIGHTS
All Users
100.00% Users
+ Add Segment
1 May 2016 - 20 Jun 2020
Overview
Page Views
VS
Select a metric
Hourly
Day
Week
Month
Page Views
100,000
50,000
2017
2018
2019
2020
Users
622,782
New Users
622,774
Sessions
999,719
Number of Sessions per User
1.61
Page Views
4,284,738
Pages/Session
4.29
Avg. Session Duration
00:03:43
Bounce Rate
3.32%
New Visitor
Returning Visitor
14.5%
Spikes correspond to publications, events
Steady growth over 4 years (now around 30k views/week)

Migration to Drupal 8

Motivation

- Drupal is an Open Source Content Management System (CMS)
  - Selected for security, management of large sites
- CERN supports Drupal 7 until **mid-2020**
  - CERN guarantees support for Drupal 8
- Opportunity to improve ATLAS Public Website
  - **More dynamic** look & feel

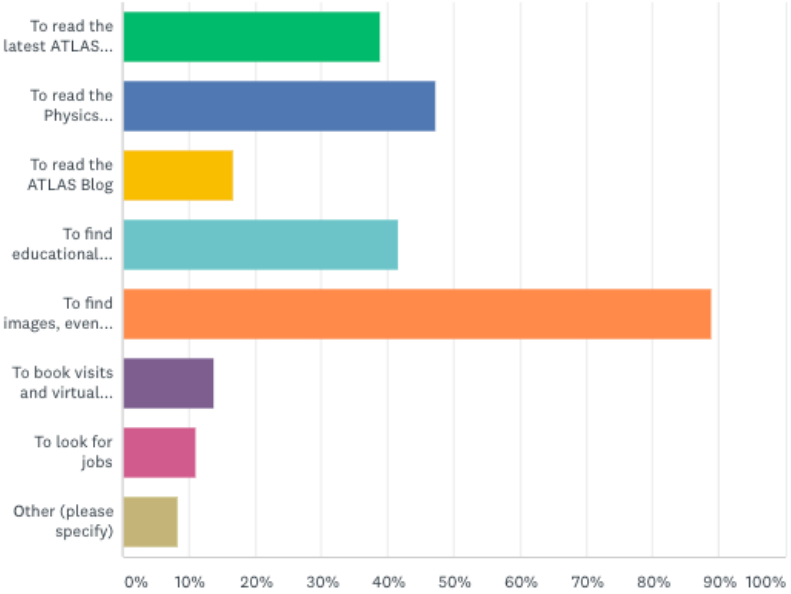
Technicalities

- Migration not automatic
  - Change of template language 👉 **twig**
- Opportunity to improve maintainability
  - Simplify future migrations

Extracts from Collaboration Poll

Why do you visit the ATLAS Public Web Site? (check all that apply)

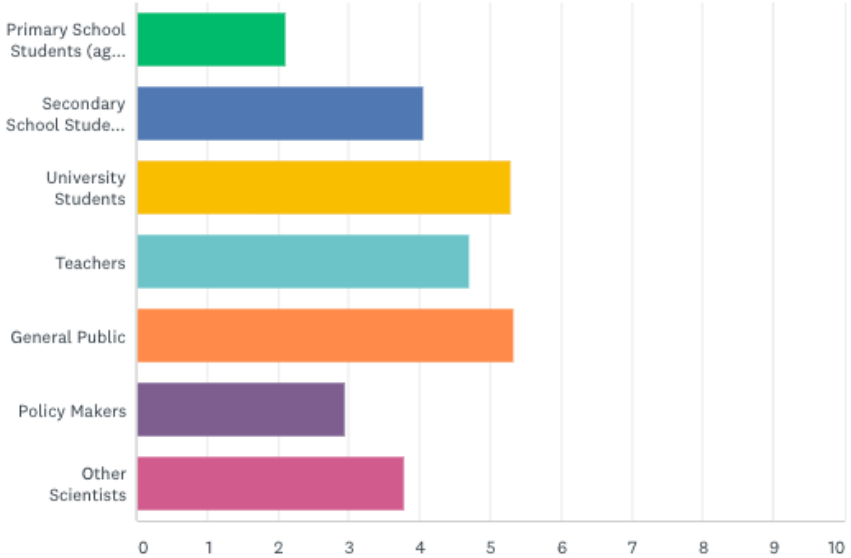
Answered: 36 Skipped: 1



Extracts from Collaboration Poll

How would you prioritise the audiences of the ATLAS Public Web Site?

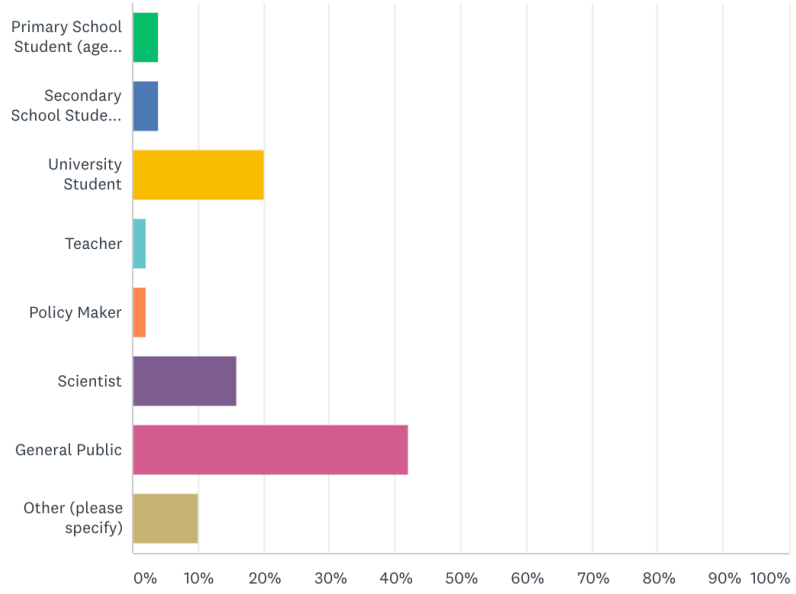
Answered: 36 Skipped: 1



Extracts from Public Poll

Who are you?

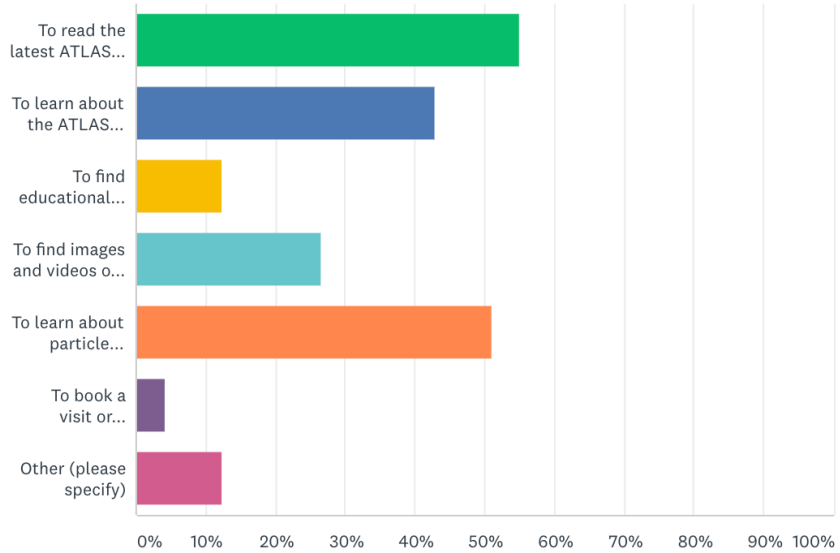
Answered: 50 Skipped: 1



Extracts from Public Poll

Why do you visit the ATLAS Public Website?

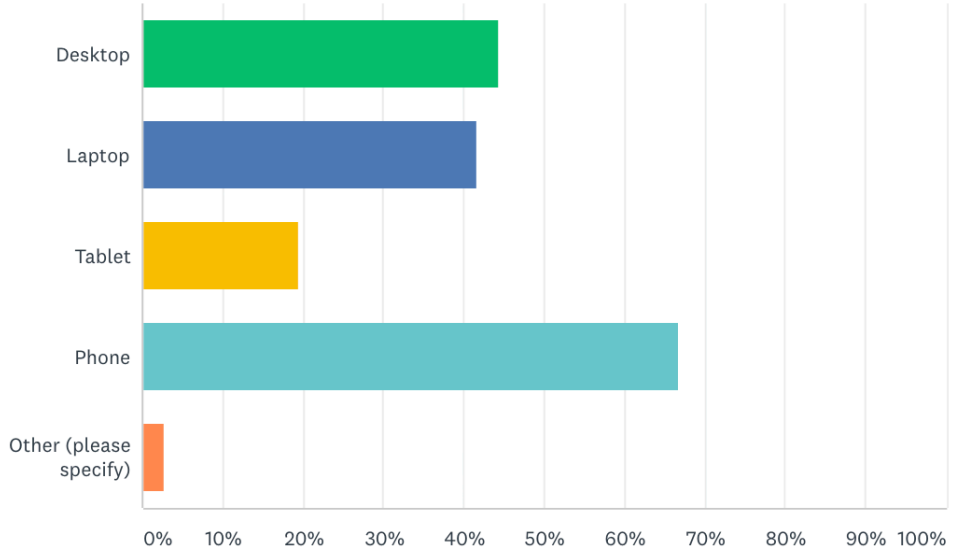
Answered: 49 Skipped: 2



Extracts from Public Poll

How do you access the ATLAS Public Website? (check all that apply)

Answered: 36 Skipped: 0



Quick Summary of Poll Input

The Collaboration

- Comes to public site for material, news 
- Expects a broad range of audiences
- Wants more educational material

The Public

- Identify as General Public, University Students, Scientists
- Want the latest news and to learn about ATLAS & Particle Physics
- Uses a variety of screens

In General

- Statistics limited, but matches data from polls of 4 years ago
- Our structure (Description, Educational Material, Updates) remains valid

Migration Wish List 🙏

Upgrade Infrastructure

- Rebuild ATLAS site in Drupal 8
- Use “CERN Override” theme instead of “ATLAS” theme
  - Reduce specialised templates

Improve Design

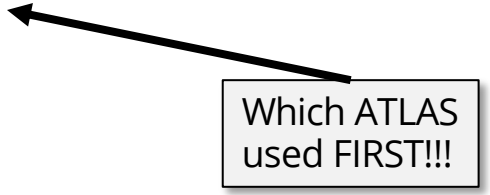
- Follow current trends
  - Dynamic, responsive content, easy to use menus
- Better usability for content developers
  - Easier Layout Capability
  - Our writer keeps begging for WordPress
  - Hasn’t anyone come up with a similar environment for Drupal? Why not?

Automated Large-Scale Migration of Content

Where Are We, Now?

Design

- ATLAS Visual Identity implemented in CERN Override
  - Colour palette, logo, fonts (no, not ***comic sans***, but **open sans**)
- Regions & Blocks similar to Drupal 7 site
  - Forced to redefine footer, but not an issue

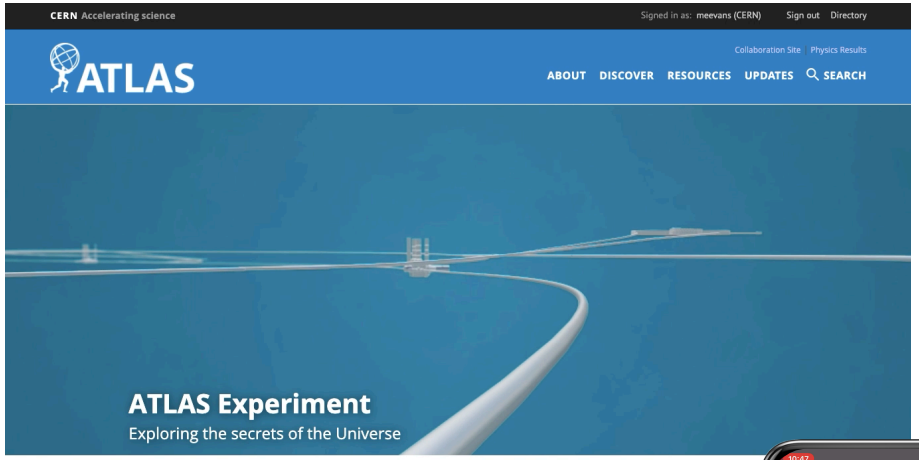


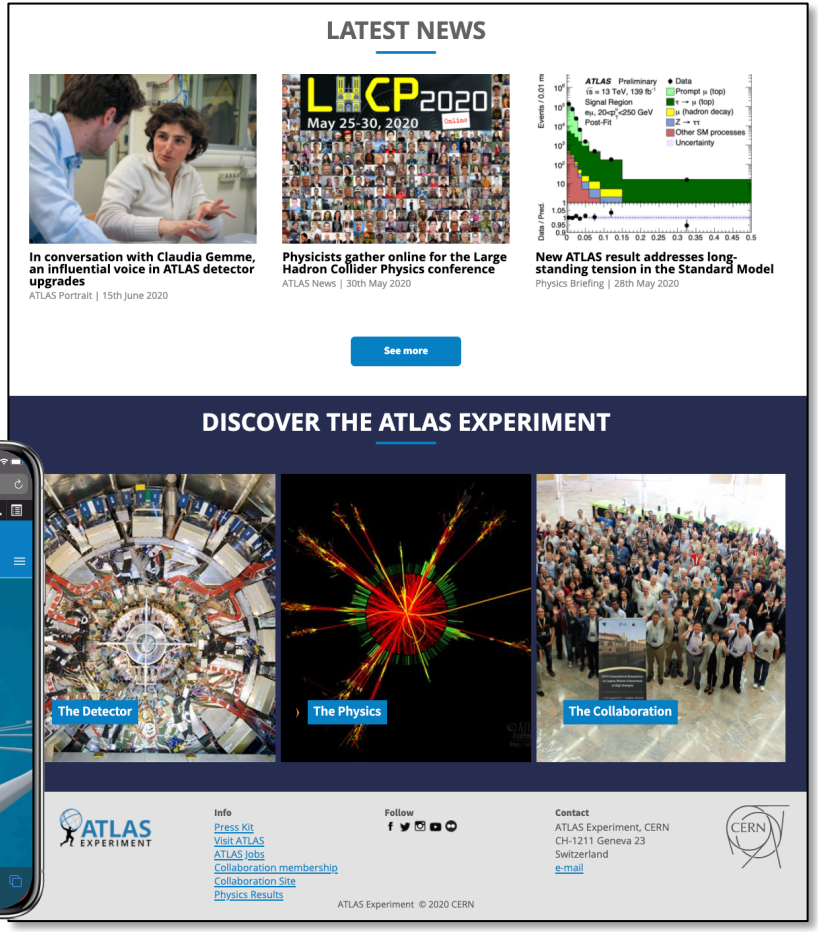
Content Types

- Using Landing Page as is, others re-defined, as in Drupal 7
- Being tested and refined

Views

- Re-defined as in Drupal 7
- Being tested and refined


CERN Accelerating science
Signed in as: meevans (CERN)
Sign out
Directory
ATLAS
Collaboration Site
Physics Results
ABOUT
DISCOVER
RESOURCES
UPDATES
SEARCH
ATLAS Experiment
Exploring the secrets of the Universe


LATEST NEWS
In conversation with Claudia Gemme, an influential voice in ATLAS detector upgrades
ATLAS Portrait | 15th June 2020
LHCP2020
May 25-30, 2020
Physicists gather online for the Large Hadron Collider Physics conference
ATLAS News | 30th May 2020
New ATLAS result addresses long-standing tension in the Standard Model
Physics Briefing | 28th May 2020
See more
DISCOVER THE ATLAS EXPERIMENT
The Detector
The Physics
The Collaboration
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Physics Results
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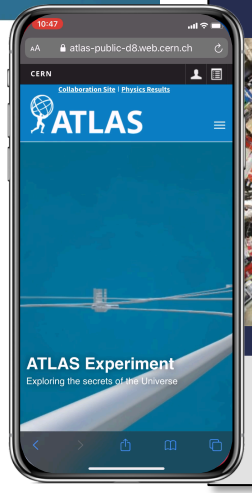
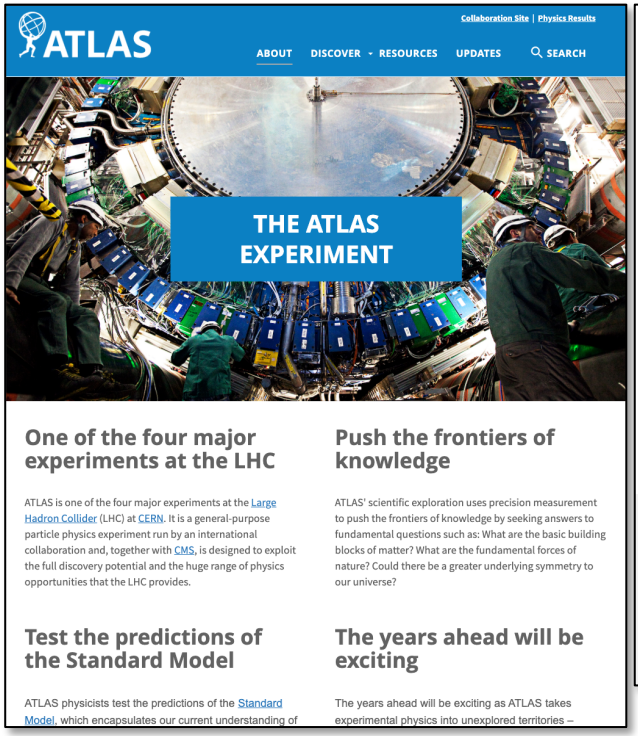
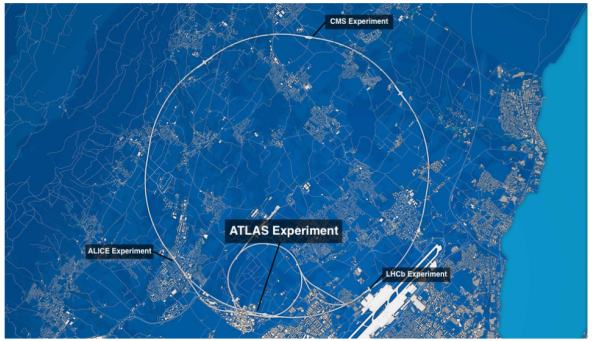
ATLAS Experiment © 2020 CERN


10:47
atlas-public-d8.web.cern.ch
CERN
Collaboration Site | Physics Results
ATLAS
ATLAS Experiment
Exploring the secrets of the Universe



what the building blocks of matter are and how they interact. These studies can lead to ground-breaking discoveries, such as that of the Higgs boson, physics beyond the Standard Model and the development of new theories to better describe our universe.

maybe with new processes and particles that could change our understanding of energy and matter.

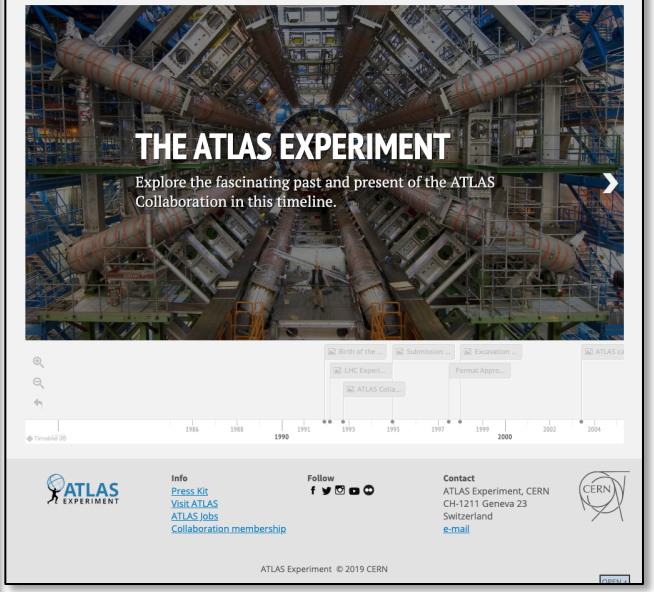


ATLAS ACROSS TIME

The approval of the ATLAS Experiment was an important milestone in the history of particle physics – but it was just the first step in a long journey. Making ATLAS a reality required years of innovative developments in technology and physics. Learn the history of its development in the video above.

ATLAS is celebrating this exciting milestone with a dedicated ATLAS25 year. During this year all institutes, members and the public are welcome to:

- Discover the history of the ATLAS Experiment.
- Explore the technological and scientific achievements of the ATLAS Collaboration, including the 2012 discovery of the Higgs boson.
- Look ahead to the ATLAS Collaboration's exciting future prospects, as it prepares for a new era of discovery with the HL-LHC.
- Play the ATLAS 25 Memory Game, developed by collaboration member Riccardo Bianchi.

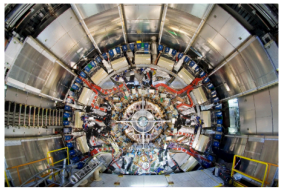


ATLAS

Collaboration Site | Physics Results

ABOUT DISCOVER RESOURCES UPDATES SEARCH

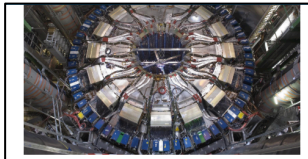
THE ATLAS DETECTOR



The largest volume detector ever constructed for a particle collider

ATLAS has the dimensions of a cylinder, 46m long, 25m in diameter, and sits in a cavern 100m below ground. The ATLAS detector weighs 7,000 tonnes, similar to the weight of the Eiffel Tower.

The detector itself is a many-layered instrument designed to detect some of the tiniest yet most energetic particles ever



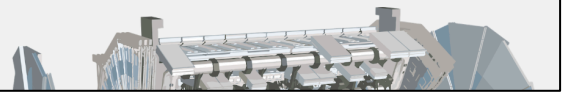
created on earth. It consists of six different detecting subsystems wrapped concentrically in layers around the collision point to record the trajectory, momentum, and energy of particles, allowing them to be individually identified and measured. A huge magnet system bends the paths of the charged particles so that their momenta can be measured as precisely as possible.

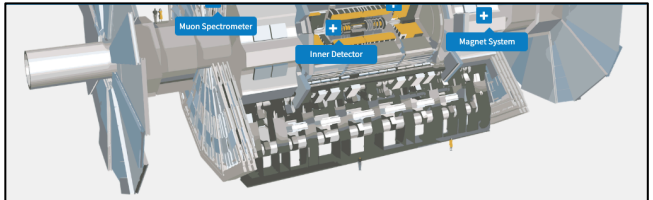
Beams of particles travelling at energies up to seven trillion electron-volts, or speeds up to 99.999999% that of light, from the LHC collide at the centre of the ATLAS detector producing collision debris in the form of new particles which fly out in all directions. Over a billion particle interactions take place in the ATLAS detector every second, a data rate equivalent to 20 simultaneous telephone conversations held by every person on the earth. Only one in a million collisions are flagged as potentially interesting and recorded for further study. The detector tracks and identifies particles to investigate a wide range of physics, from the study of the Higgs boson and top quark to the search for extra dimensions and particles that could make up dark matter.

Take a virtual walk

46	100	7000	1000000000
Meter Long & 25m of diameter	Meter below ground	Tonnes	Collisions / second

HAVE A CLOSER LOOK





TECHNOLOGY

ATLAS EXPERIMENT

Info
Press Kit
Visit ATLAS
ATLAS Jobs
Collaboration membership

Follow

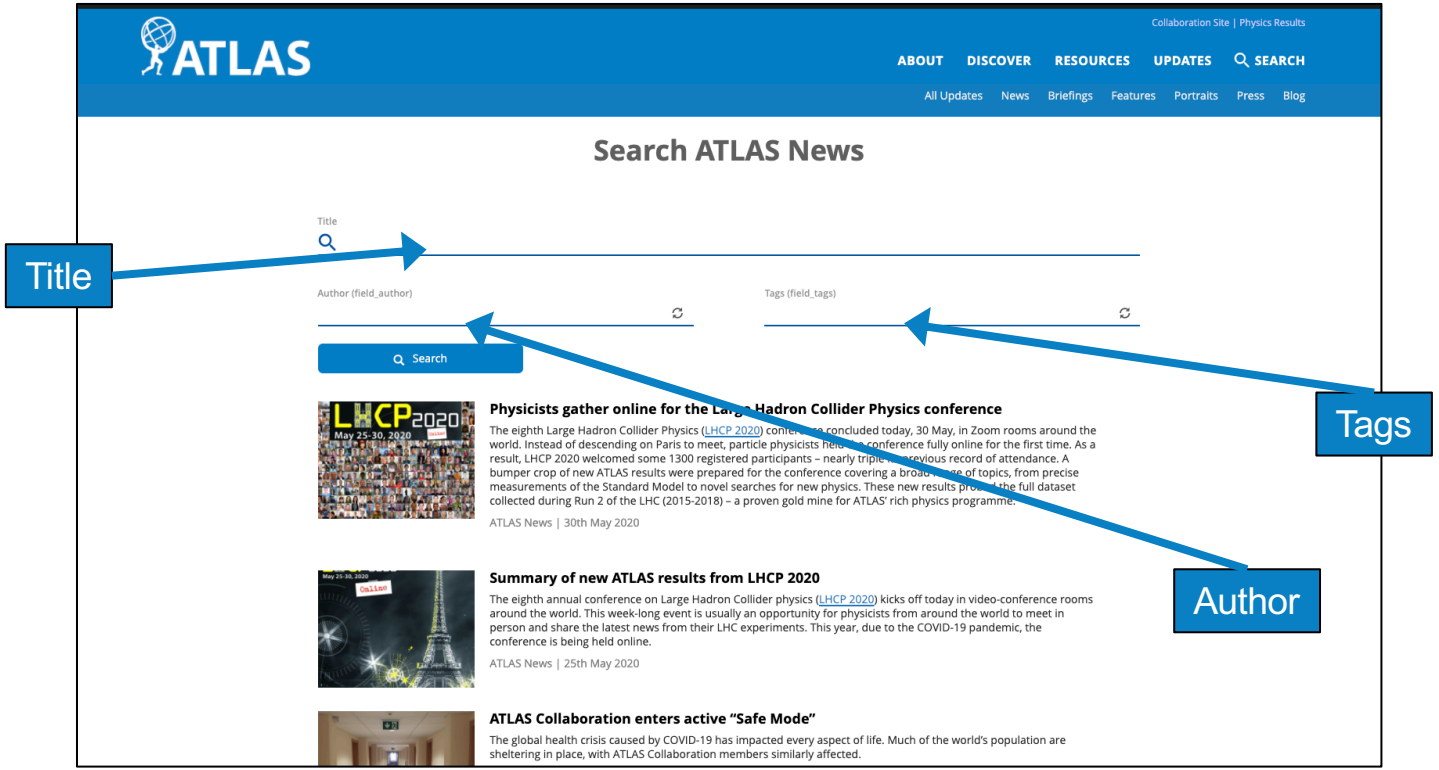
Contact
ATLAS Experiment, CERN
CH-1211 Geneva 23
Switzerland
e-mail

CERN

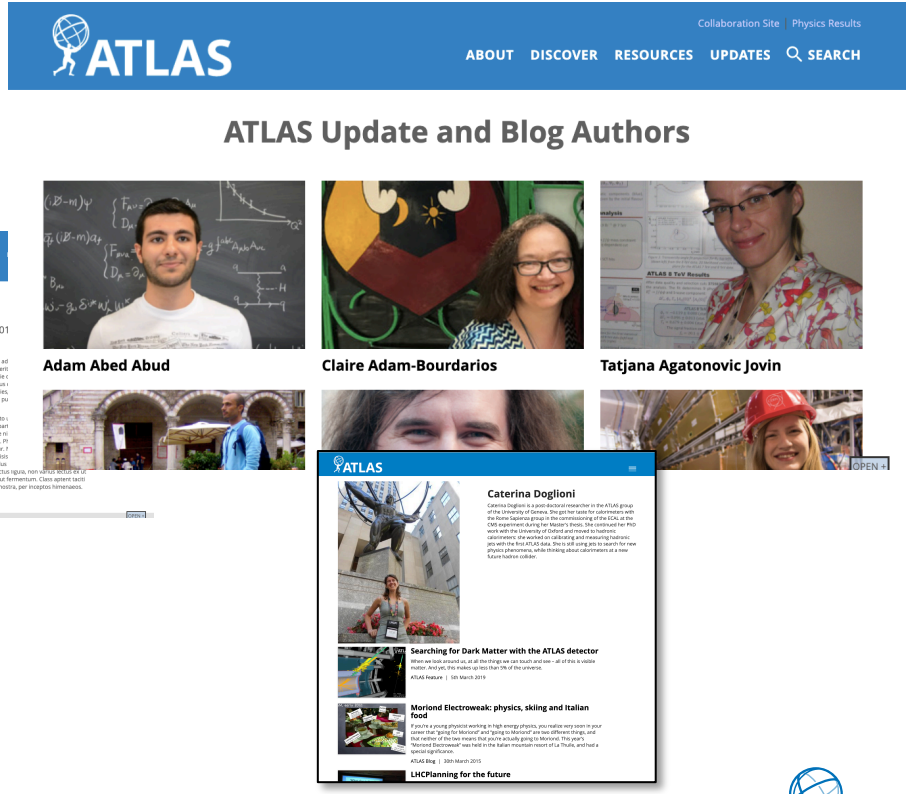
ATLAS EXPERIMENT

The Updates Landing Page

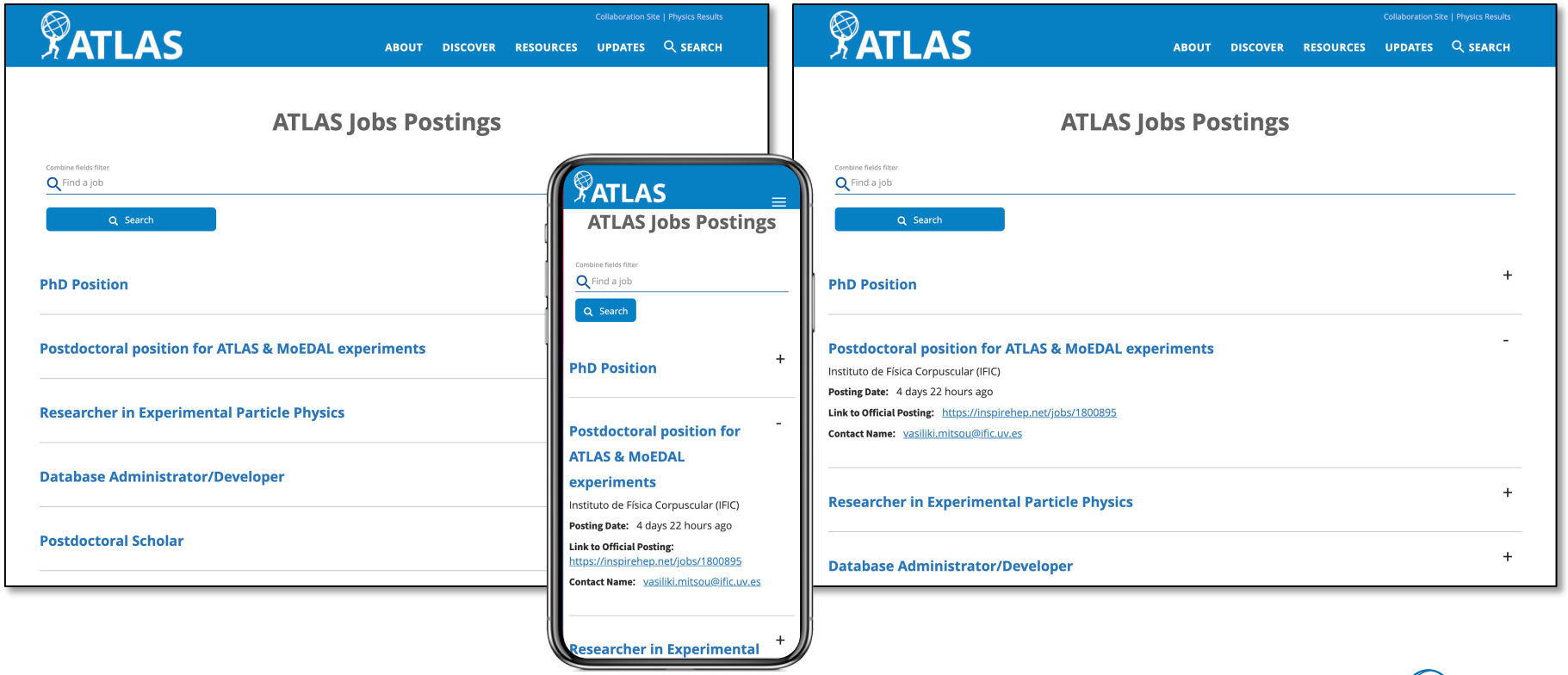
Searching Updates



Management & Authors Pages



Job Postings



What Remains

Development

- Resources / Education / Open Data landing pages

Content

- Detailed layer of physics pages
- Mass import of Virtual Visits

Design

- Completion of responsive styling (different screen sizes)  → →
- Fine tuning of ATLAS elements (our own look and feel, rather than CERN's)

Had a few show-slowers, but no stoppers!

Summary

Move to Drupal 8

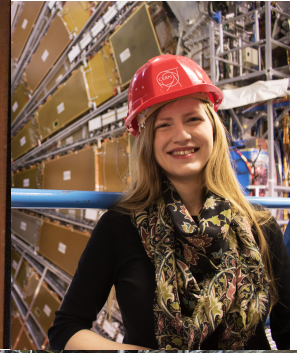
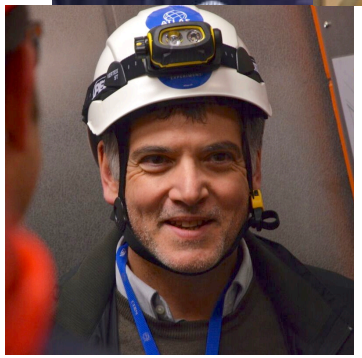
- We're complying with the choice of Drupal 8 for upgrade
  - CERN support team is very helpful
  - CERN Override theme provides most of the functionality we need
- The theme (perhaps Drupal, in general) is frustrating for high-level design
  - Environment for content providers (writers) is clunky
  - Having to develop code (templates) to implement our style
- Mass import (>1000 nodes) has gone well ✅

Common goals, different approaches (same boat, different waves) ⛵🌊

- CMS, ALICE have developer
- IPPOG using designer / first implementation

We're excited to welcome you to the new ATLAS Public Website soon!



Thanks!

*plus everybody who's worked on the ATLAS public website before

**plus everybody who answered the collaboration surveys

***plus everybody who answered the public surveys

****plus everybody who's ever used the ATLAS public website

Want to chat?

Join my Zoom room after this session

meirin.oan.evans@cern.ch

@meirinoanevans

@meirinoanevans

meirin-oan-evans

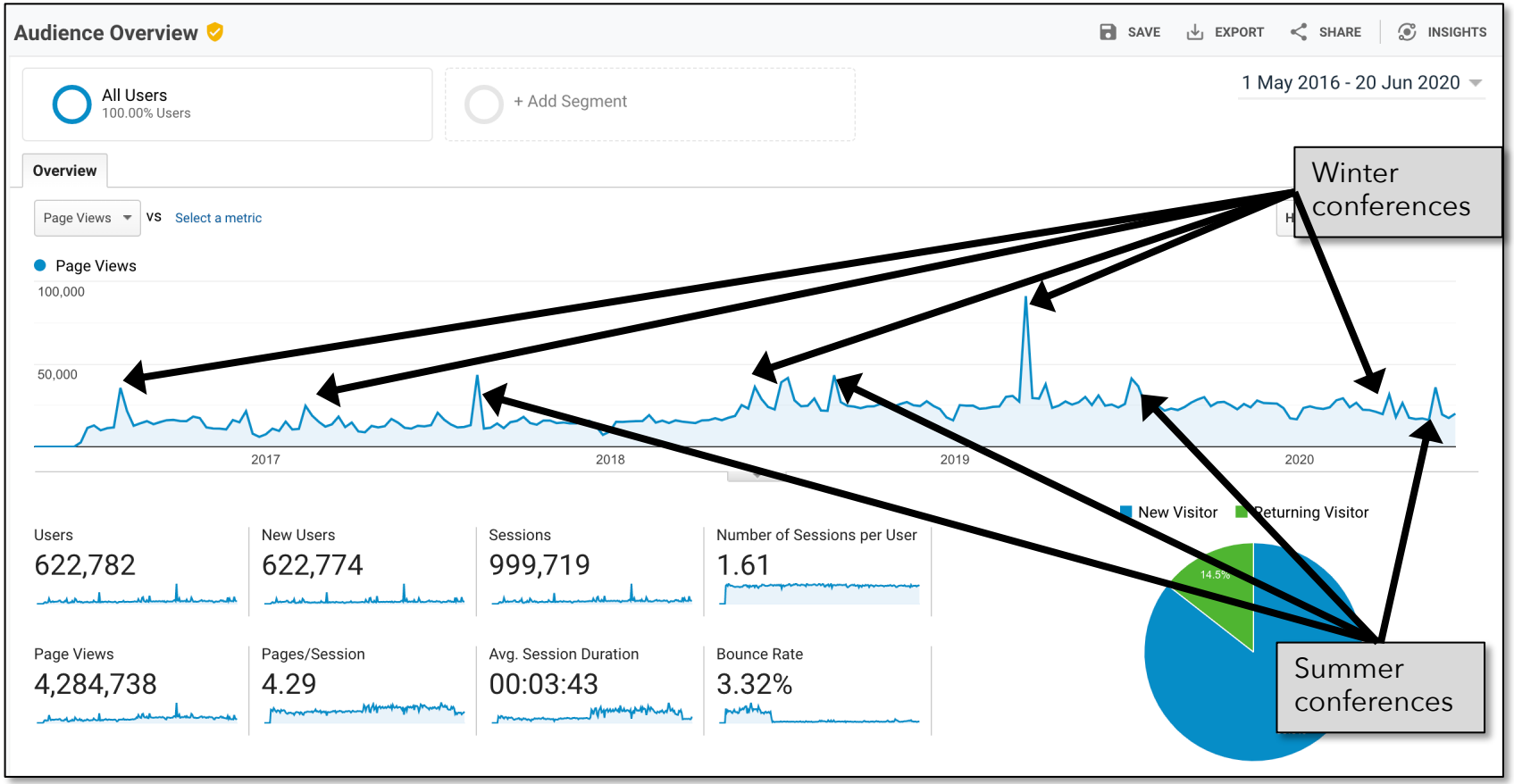
Or just look for me at CERN

- This is what I look like →

Backup

Drupal?

The name **Drupal** represents an English rendering of the Dutch word druppel, which means "drop" (as in a water droplet).


Audience Overview
SAVE
EXPORT
SHARE
INSIGHTS
All Users
100.00% Users
+ Add Segment
1 May 2016 - 20 Jun 2020
Overview
Page Views
vs
Select a metric
Page Views
100,000
50,000
2017
2018
2019
2020
Winter conferences
Summer conferences
Users
622,782
New Users
622,774
Sessions
999,719
Number of Sessions per User
1.61
Page Views
4,284,738
Pages/Session
4.29
Avg. Session Duration
00:03:43
Bounce Rate
3.32%
New Visitor
Returning Visitor
14.5%

Collaboration & Public Polls

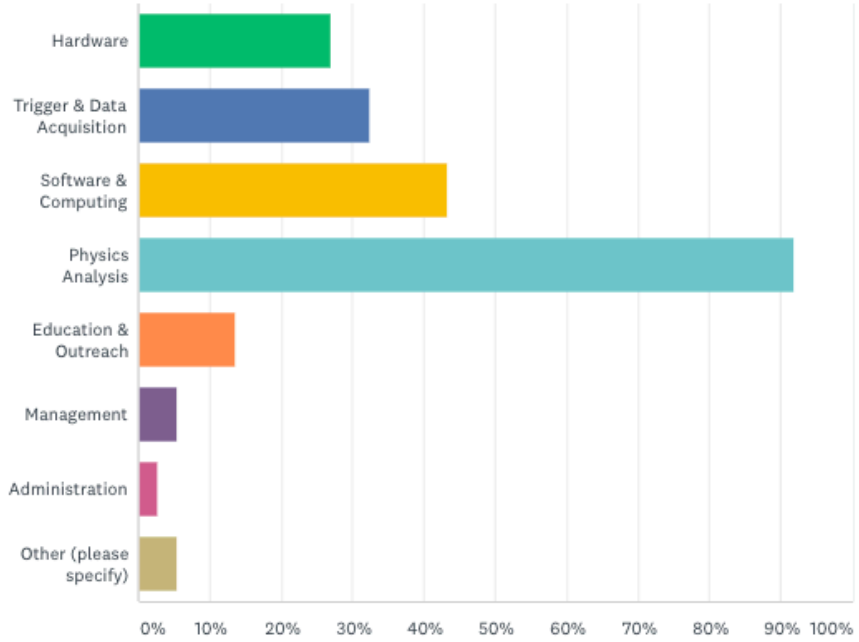
Collaboration Survey: https://www.surveymonkey.com/r/LQJM8XZ

Public Survey: https://www.surveymonkey.com/r/Q6X592T

Extracts from Collaboration Poll

What are your areas of work in the collaboration? (check all that apply)

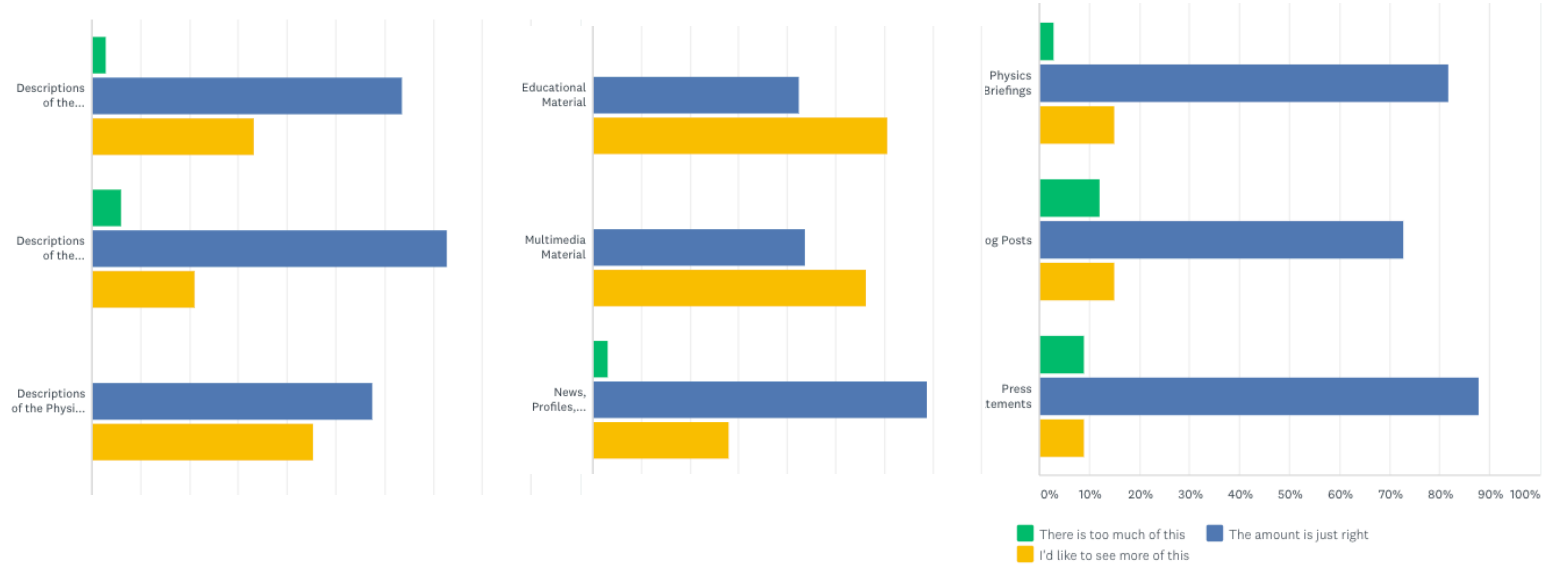
Answered: 37 Skipped: 0



Extracts from Collaboration Poll

How much of the following content do you expect on the ATLAS Public Web Site?

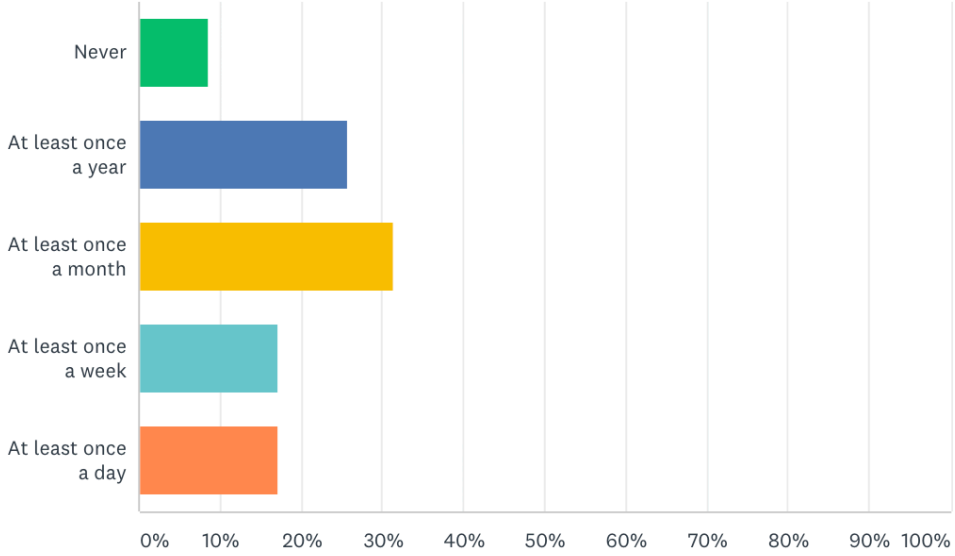
Answered: 34 Skipped: 3



Extracts from Public Poll

How often do you visit the ATLAS Public Website?

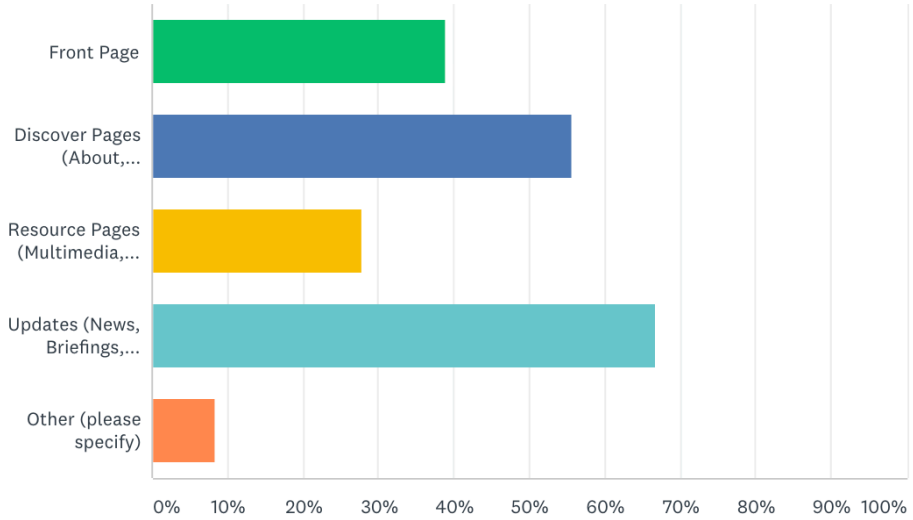
Answered: 35 Skipped: 1



Extracts from Public Poll

What areas of the ATLAS Public Website do you typically visit? (check all that apply)

Answered: 36 Skipped: 0



Screen Usage

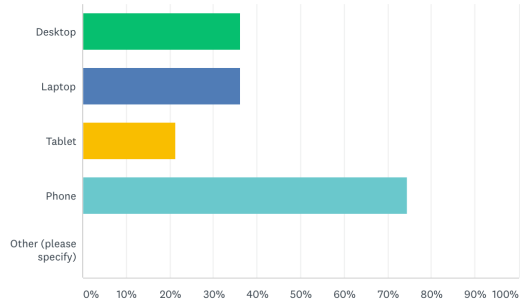
	Operating System	Users	% Users
1.	Windows	135,908	34.98%
2.	Android	101,812	26.21%
3.	Macintosh	61,976	15.95%
4.	iOS	56,784	14.62%
5.	Linux	26,511	6.82%
6.	(not set)	2,717	0.70%
7.	Chrome OS	2,471	0.64%
8.	Windows Phone	131	0.03%
9.	BlackBerry	100	0.03%
10.	Tizen	31	0.01%

Screen Usage (Google Analytics)

Screen Usage (Public Poll)

How do you access the ATLAS Public Website? (check all that apply)

Answered: 47 Skipped: 2



ANSWER CHOICES		RESPONSES	
Desktop		36.17%	17
Laptop		36.17%	17
Tablet		21.28%	10
Phone		74.47%	35
Other (please specify)	Responses	0.00%	0
Total Respondents: 47			

The Challenge

Content Types

- **Current**: Glossary Term (22), Home Page (2), Job Posting (800+), Multimedia (1), Page (40), Update (500+), Webform (2)
- **Drupal 8**: Glossary Term, Home Page, Job Posting, Landing Page, Update, Virtual Visit, Webform

Views

- **Current**: Author Profiles, Updates, Blog, Briefings, Features, News, Portraits, Profiles, Press Statements, Updates Side Bars, All Updates pages, RSS Feeds, Glossary, Jobs, Discover, Resources pages
- **Drupal 8**: Author Profiles, Updates, Blog, Briefings, Features, News, Portraits, Profiles, Press Statements, Glossary, Jobs, Virtual Visits

Totals >**1000 pages of content** and a few dozen new landing pages

Where are we, now?

Component	Status	Notes
Home page	Completed	Video landing page
About page	Completed	Landing page
Detector page	Completed	Landing page
Subsystem pages	Inner Detector, Calorimeter, Muons, Magnets 1st Draft	Landing pages
TDAQ page	Completed	Landing page
Software & Computing page	Completed	Landing page
Tech Transfer page	Completed	Landing page
Physics pages	Completed Top Level	Working on 2nd level pages
Collaboration page	Completed	Landing page
Membership pages	Completed	Landing pages
ATLAS Awards pages	Completed	Landing pages
Career Opportunities page	Completed Current ATLAS Jobs	Accordion View (Other views to follow)
Jobs pages	Completed	Mass migration of 800 jobs – Updated periodically
Updates page	Completed and Re-Styled	Views of updates
Updates pages	Completed, Styled, Correctly Aliased	Mass migration of 500 Updates – Updated periodically

Where are we, now?

Component	Status	Notes
Updates Search Pages	All, News, Briefings, Blog, Press Statements, etc.	Allows search by title, tags, author, content
Management pages	Completed (except bios)	Individual Pages of Current/Past Management
Management landing page	Completed	View of Management pages using ATLAS Cards
Author pages	Completed	Individual Pages of Update/Blog Authors
Author landing page	Completed	View of Author pages, using ATLAS Cards
Main Menu	Completed	Visual Improvements, tuning for phone
Main Submenus	Completed 1st Iteration (new style)	Used for Discover, Updates (needs tuning)
Visit page	Completed but needs Virtual Visits	Landing Page
Virtual Visit pages	In progress	Mass porting of around 400 visits
Virtual Visit landing page	In progress	Views of Virtual Visit pages, Instructions, Form, etc.
Resources landing page	In progress	Landing pages in Design stage
Search engine	In progress	Fixing phone version
Open Data landing page	Coming soon	Landing Page

Development Issues

Landing Pages

- Flexible, but not trivial for writer to work with
- e.g. lack of clone feature for elements is a show-slower

Updates (News, Briefings, ...)

- Article Content Type insufficient for creating quality content visually
  - Editing source to add bootstrap classes by hand!
- Need to be able to lay out an article professionally

Short Codes

- In Drupal 7, we defined short codes, like [img right 50%] or [span1of3]
- Perhaps this can be handled visually?

Large-Scale Porting of Data

Updates

- 500+ articles
- They contain short codes for the layout
  - Had to translate manually or automatically

Job Postings

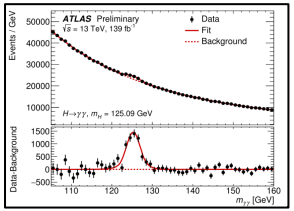
- 800+ postings
  - We maintain an archive of past postings

Virtual Visits

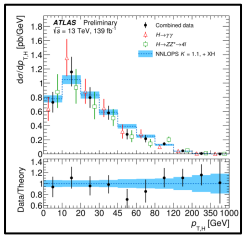
- 400+ visits
  - They're in a different Drupal 7 site

Layout images side-by-side (Drupal 7 ATLAS theme)

```
[span1of2]
[img]
```




```
[/img]
[/span1of2]
[span1of2 last]
[img]
```

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[/img]
[/span1of2]
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physicists to measure kinematic properties of the Higgs boson with unprecedented precision (Figure 3). These are sensitive to new physics processes, making their exploration of particular interest to the collaboration.

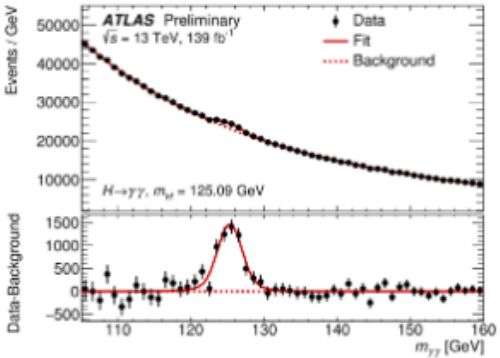

Figure 2: Distribution of the invariant mass of the two photons in the ATLAS measurement of H→γγ using the full Run-2 dataset. The Higgs boson corresponds to the excess of events observed at 125 GeV with respect to the non-resonant background (dashed line). (Image: ATLAS Collaboration/CERN)

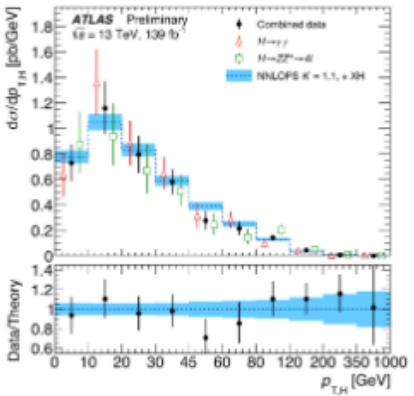

Figure 3: Differential cross section for the transverse momentum (pT,H) of the Higgs boson from the two individual channels (H→ZZ*→4ℓ, H→γγ) and their combination. (Image: ATLAS Collaboration/CERN)

Layout two images side-by-side (Drupal 8 CERN theme)

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alt="Plots or Distributions,Physics,ATLAS,Higgs boson"
src="//cds.cern.ch/images/ATLAS-PHOTO-2018-020-2/file?size=large" /></a>
<figcaption>Figure 3: A recent distribution of candidate Higgs events from the H to
ZZ to 4 leptons analysis using 13 TeV data from the LHC. The excess of events
around 125 GeV is consistent with Standard Model predictions for the Higgs boson.
(Image: ATLAS Collaboration/CERN)</figcaption></ re></div>
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<figcaption>Figure 4: The measured action strength as a function of the mass
of different particles in the St Model. (Image: ATLAS and CMS
Collaborations/CERN)</figcapt igure></div>
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Had to learn bootstrap classes