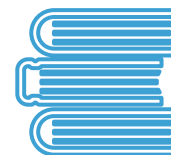


Digital Repositories at CERN

Jose Benito Gonzalez Lopez

Who are we?

SW Eng. team providing DR technology



Develop software and provide services



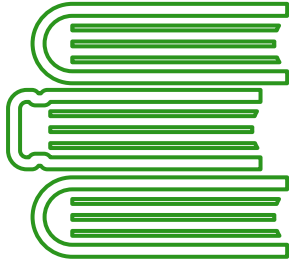
Open: Source, Data, Science



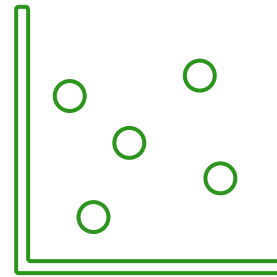
Repository?



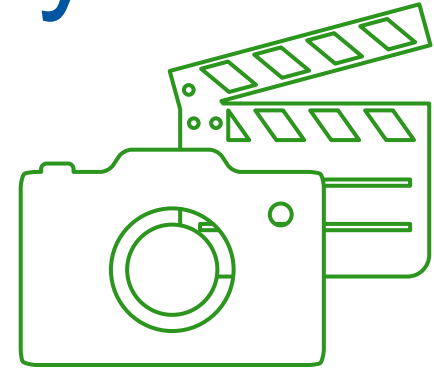
Digital Repository?



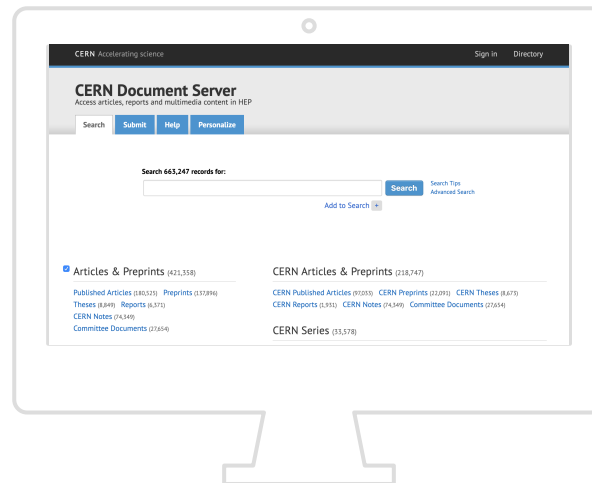
Articles,
Papers,
Thesis,
Standards,
Books, etc



Data,
Software, ...



Photos,
Videos,
Audio, ...



Open Science

Publication

EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH (CERN)



CERN EP 2018 121
LHCb-PAPER-2018-019
July 24, 2019

Measurement of CP violation in the $B_s^0 \rightarrow \phi \phi$ decay and search for the $B^0 \rightarrow \phi \phi$ decay

arXiv:1907.10003v1 [hep-ex] 23 Jul 2019

LHCb collaboration^a

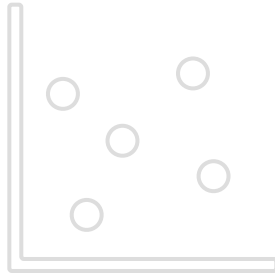
Abstract
A measurement of the time-dependent CP -violating asymmetry in $B_s^0 \rightarrow \phi \phi$ decays is presented. Using a sample of proton-proton collision data corresponding to an integrated luminosity of 3.0 fb^{-1} collected by the LHCb experiment at center-of-mass energies $\sqrt{s} = 7\text{ TeV}$ in 2011, 8 TeV in 2012 and 13 TeV in 2015 and 2016, a signal yield of around 900 $B_s^0 \rightarrow \phi \phi$ decays is obtained. The CP -violating phase $\phi_{CP}^{B_s^0}$ is measured to be $-0.073 \pm 0.115\text{ (stat)} \pm 0.027\text{ (sys)}$ rad, under the assumption it is independent on the helicity of the ϕ decay. In addition, the CP -violating phases of the transverse polarizations under the assumption of CP conservation of the longitudinal plane are measured. The helicity-independent direct CP -violation parameter is also measured, and is found to be $|1| = 0.99 \pm 0.05\text{ (stat)} \pm 0.03\text{ (sys)}$. In addition, F -odd triple-product asymmetries are measured. The results obtained are consistent with the hypothesis of CP conservation in $B \rightarrow \phi \phi$ transitions. Finally, a limit on the branching fraction of the $B^0 \rightarrow \phi \phi$ decay is determined to be $\mathcal{B}(B^0 \rightarrow \phi \phi) < 2.7 \times 10^{-6}$ at 90% confidence level.

Submitted to JHEP

© 2019 CERN for the benefit of the LHCb collaboration. CC-BY 4.0 license.

^aAuthors are listed at the end of this paper.

Data



Software



De-duplication
Sharing
“Fake science”
Effective research

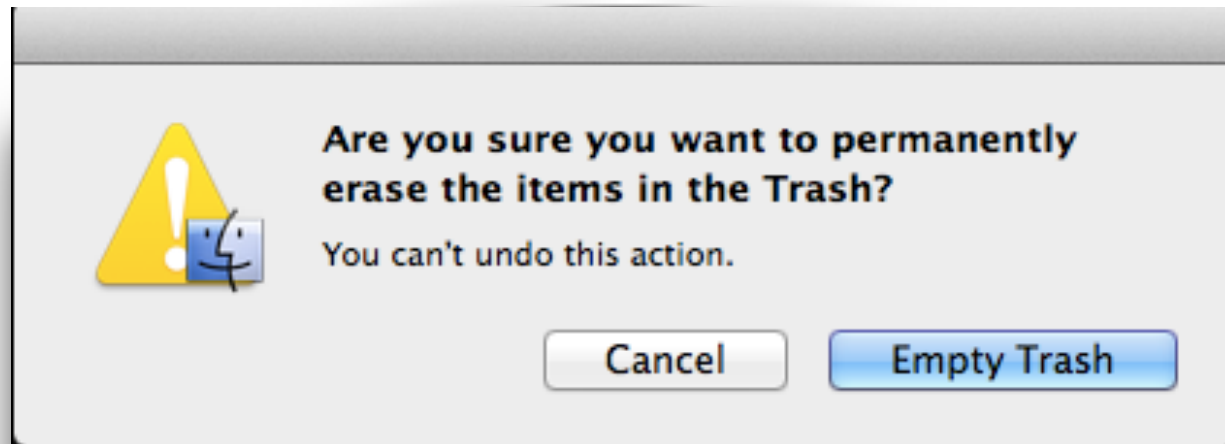
Digital Repository?



Digital Repository?



Digital Repository?



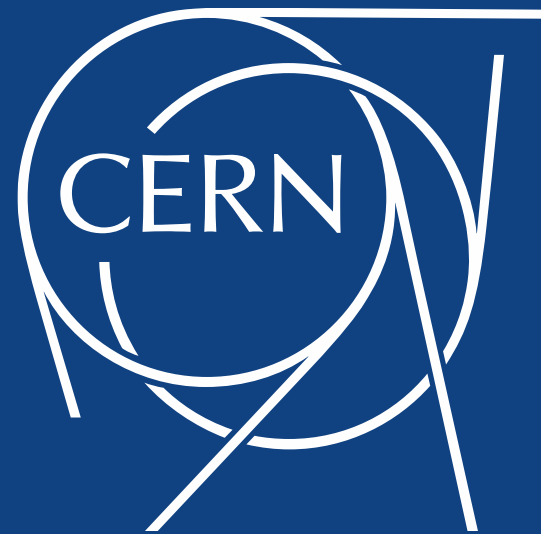
Digital Repository?



Publish or Perish?

20%

store data in a digital archive



CERN DOCUMENT SERVER

CERN OPEN DATA

REANA

ZENODO

OAIS ARCHIVAL STORE

CERN ANALYSIS PRESERVATION

INSPIRE

HEP DATA, SCOPE3

60 INSTANCES
WORLD WIDE

INVENIO



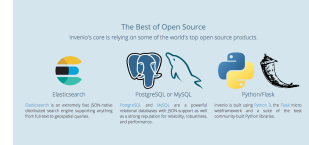
Invenio

<https://inveniosoftware.org>
<http://github.com/inveniosoftware>

A blue-tinted banner image showing a library or office setting with bookshelves and a desk. The word 'INVENIO' is prominently displayed in white, with a magnifying glass icon integrated into the letter 'O'. Below the title, the text 'Open Source framework for large-scale digital repositories.' is written in a lighter blue font. At the bottom, there are two white buttons: 'See examples' and 'Get started'.

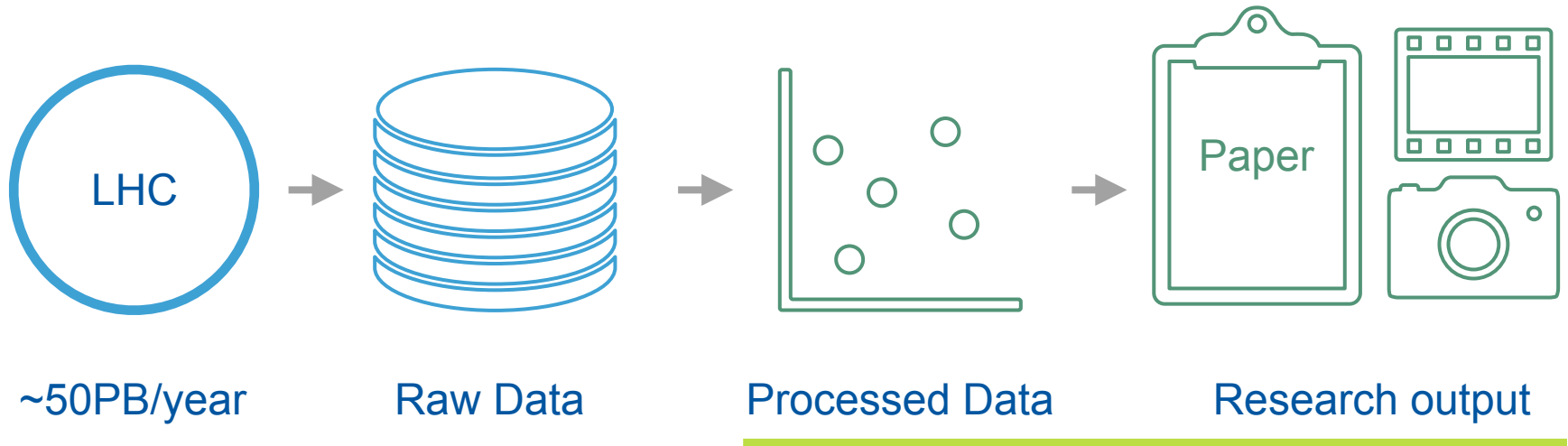
Invenio

Born at **CERN**
Free Open Source Software
Core for any digital repository
Modern & reliable technology
Flexible and modular
Handling **100M+** records
Develop with **PB** files in mind
Fast upload/search

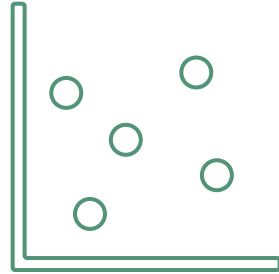


Invenio Services at CERN

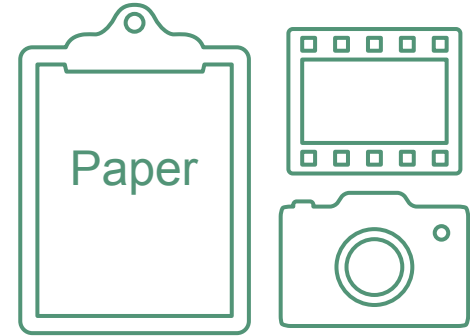
Data at CERN



At CERN



Processed Data



Research output

**CERN
ANALYSIS
PRESERVATION**

<http://analysispreservation.cern.ch>

Capture

REANA

<https://reana.io>

Reproduce

**CERN OPEN
DATA**

<http://opendata.cern.ch>

Publish

**CERN DOCUMENT
SERVER**

<http://cds.cern.ch>

Publish and Archive

Processed Data

**CERN
ANALYSIS
PRESERVATION**

<http://analysispreservation.cern.ch>

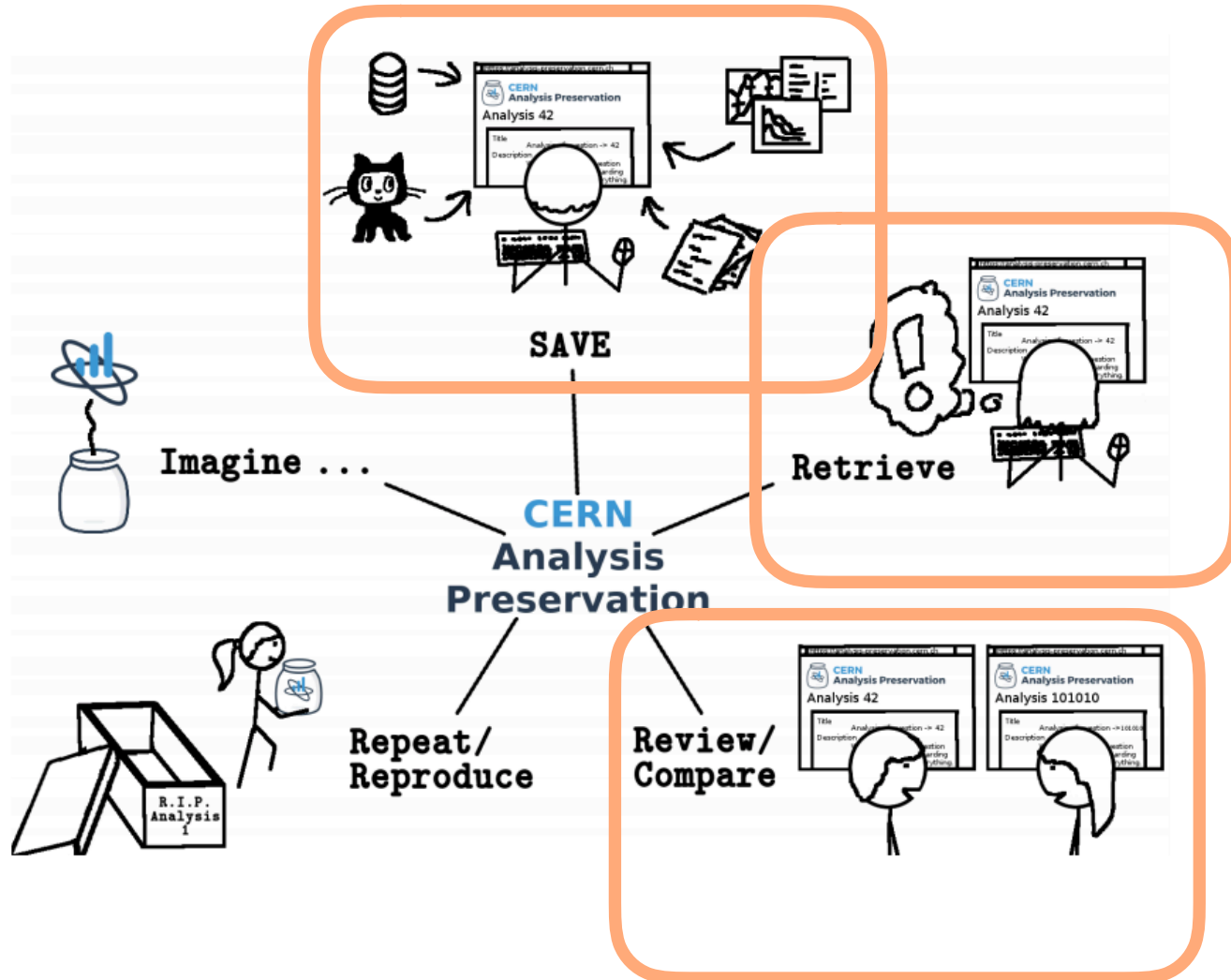
REANA

<https://reana.io>

**CERN OPEN
DATA**

<http://opendata.cern.ch>

CERN Analysis Preservation



CERN Analysis Preservation

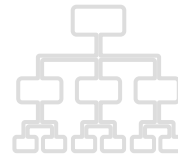
Capturing all the elements needed to understand and **rerun** an analysis even several **years**



Data




SW + Env



Workflow



Documentation

 **CERN**
Analysis Preservation

**Welcome to the CERN
Analysis Preservation
Portal.**

Our mission is to preserve the
analyses
across all CERN experiments for
years
to come...

[→ Log in with your CERN account](#)

<http://analysispreservation.cern.ch>

<https://github.com/cernanalysispreservation>

Processed Data

**CERN
ANALYSIS
PRESERVATION**

<http://analysispreservation.cern.ch>

REANA

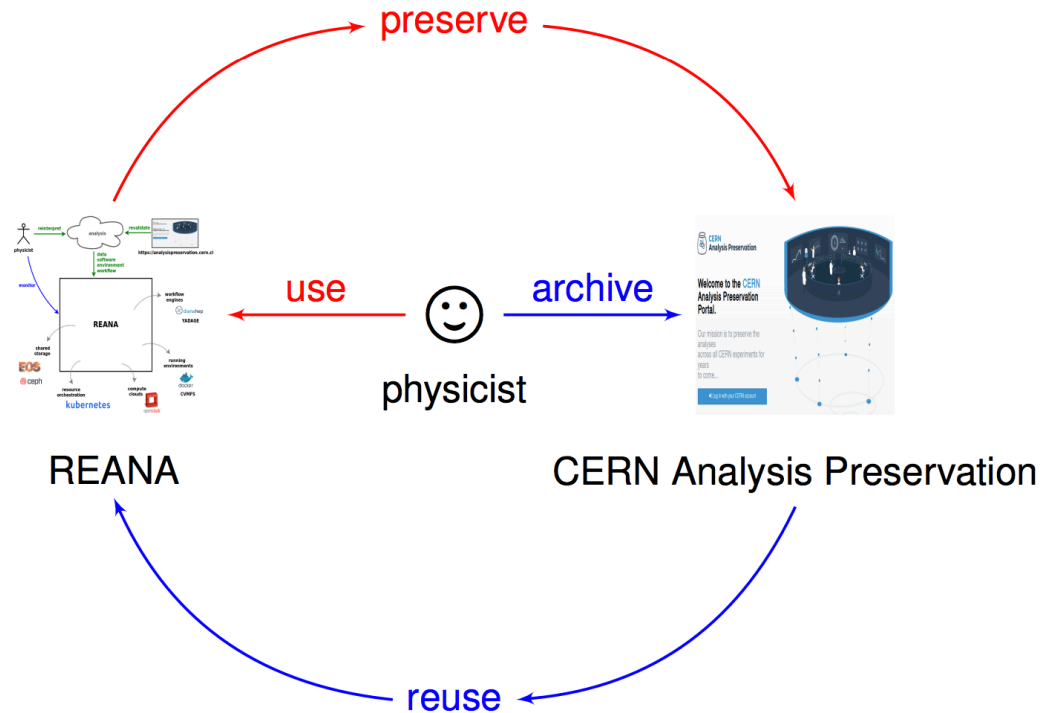
<https://github.com/reanahub>

**CERN OPEN
DATA**

<http://opendata.cern.ch>

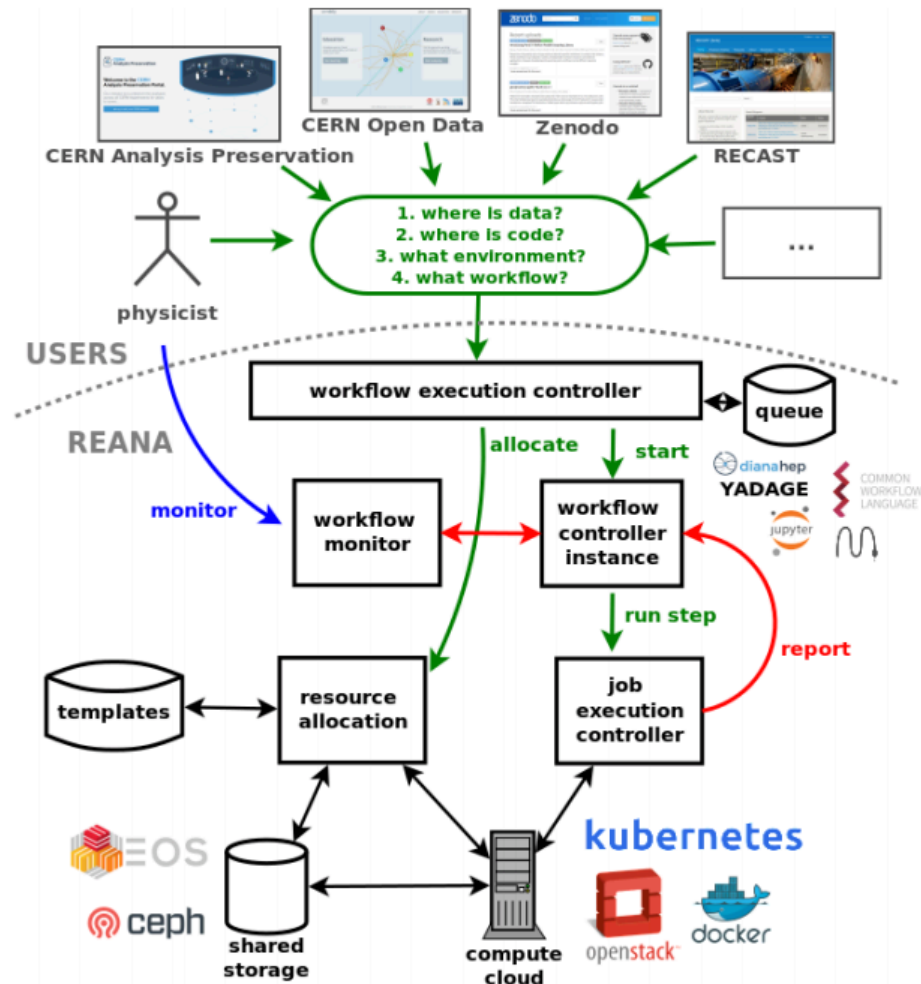
RE(usable)ANA(lysis)

<https://github.com/reanahub>



RE(usable)ANA(lysis)

<https://github.com/reanahub>



Processed Data

CERN
ANALYSIS
PRESERVATION

<http://analysispreservation.cern.ch>

REANA

<https://github.com/reanahub>

CERN OPEN
DATA

<http://opendata.cern.ch>

CERN Open Data Portal

Publicly-accessible site for curated releases of CERN data sets and software

LHC
and more

2016
CMS
300 TB

2017
CMS
~1 PB

2019
CMS
Data S.

open**data**
CERN

About ▾

Explore more than **two petabytes** of open data from particle physics!

Start typing... Search

search examples: [collision datasets](#), [keywords:education](#), [energy:7TeV](#)

Explore

- [datasets](#)
- [software](#)
- [environments](#)
- [documentation](#)

Focus on

- [ATLAS](#)
- [ALICE](#)
- [CMS](#)
- [LHCb](#)
- [OPERA](#)
- [Data Science](#)

Learn

Discover the world of open data from particle physics

Analyse

Run your own physics analyses, start virtual machines

<http://opendata.cern.ch>

<https://github.com/cernopendata>

BTag primary dataset in AOD format from RunA of 2011 (/BTag/Run2011A-12Oct2013-v1/AOD) 2016

/BTag/Run2011A-12Oct2013-v1/AOD **CMS collaboration**

Cite as: CMS collaboration (2016). BTag primary dataset in AOD format from RunA of 2011 (/BTag/Run2011A-12Oct2013-v1/AOD). CERN Open Data Portal. DOI: [10.7483/OPENDATA.CMS.N372.QF6S](https://doi.org/10.7483/OPENDATA.CMS.N372.QF6S)

Collection: [CMS-Primary-Datasets](#) Collision Energy: [7TeV](#) Experiment: [CMS](#) Accelerator: [CERN-LHC](#) Parent Dataset: [/BTag/Run2011A-v1/RAW](#)

Export

[JSON](#)

Description

BTag primary dataset in AOD format from RunA of 2011. Run period from run number 160404 to 173692.

Notes

This dataset contains all runs from 2011 RunA. The list of validated runs, which must be applied to all analyses, can be found in

[None](#)

Characteristics

Dataset: **11759539** events **489** files **1.8 TB** in total

System Details

Global tag: [FT_53_LV5_AN1](#)

Recommended release for analysis: [CMSSW_5_3_32](#)

How were these data selected?

Dataset defined for the calibration of b-quark tag algorithms. Events stored in this primary dataset were selected because of the presence of at least two high-energy jets, where one of them is tagged as a b-quark jet with a soft muon from the b-quark decay in the event.

Data taking / [HLT](#)

The collision data were assigned to different RAW datasets using the following [HLT configuration](#).

The collision data were assigned to different RAW datasets using the following [HLT configuration](#).

Data processing / RECO

This primary AOD dataset was processed from the RAW dataset by the following step:

Step: RECO

Release: CMSSW_5_3_12_patch1

Global tag: FT_R_53_LV5::All

[Configuration file for RECO step reco_2011A_BTag](#)

HLT trigger paths

The possible [HLT](#) trigger paths in this dataset are:

[HLT_BTagMu_DiJet110_Mu5](#)

[HLT_BTagMu_DiJet20_Mu5](#)

[HLT_BTagMu_DiJet40_Mu5](#)

[HLT_BTagMu_DiJet70_Mu5](#)

How were these data validated?

During data taking all the runs recorded by CMS are certified as good for physics analysis if all subdetectors, trigger, lumi and physics objects (tracking, electron, muon, photon, jet and MET) show the expected performance. Certification is based first on the offline shifters evaluation and later on the feedback provided by detector and Physics Object Group experts.

Based on the above information, which is stored in a specific database called Run Registry, the Data Quality Monitoring group verifies the consistency of the certification and prepares a json file of certified runs to be used for physics analysis.

For each reprocessing of the raw data, the above mentioned steps are repeated. For more information see:

[CMS data quality monitoring: Systems and experiences](#)

[The CMS Data Quality Monitoring software experience and future improvements](#)

[The CMS data quality monitoring software: experience and future prospects](#)

How can you use these data?

You can access these data through the CMS Virtual Machine. See the instructions for setting up the Virtual Machine and getting started in

[How to install the CMS Virtual Machine](#)

[Getting started with CMS open data](#)

File Indexes

Filename	Size	Download	EOS Link
CMS_5_3_12_patch1_AOD_160_16016_1_20000_files.root	100 B	+	?

File Indexes

Filename	Size	Download	EOS Link
CMS_Run2011A_BTag_AOD_12Oct2013-v1_00000_file_index.txt	122 Bytes	↓	↗
CMS_Run2011A_BTag_AOD_12Oct2013-v1_20000_file_index.txt	59.5 kB	↓	↗

[First](#)[Previous](#)[1](#)[Next](#)[Last](#)

Datasets

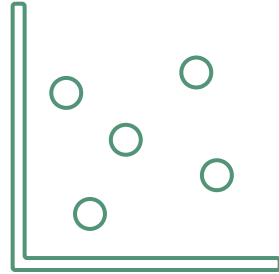
Filename	Size	Download	EOS Link
802CF580-BB46-E311-8D89-00261894388D.root	886.7 MB	↓	↗
00376186-543E-E311-8D30-002618943857.root	3.9 GB	↓	↗
0080432E-043E-E311-B4CB-00248C0BE01E.root	2.8 GB	↓	↗
00867474-453E-E311-A450-003048FFD7C2.root	3.9 GB	↓	↗
02012C2B-323E-E311-897E-003048FFD736.root	2.2 GB	↓	↗
02116E88-003E-E311-A1A9-0025905964BA.root	4.2 GB	↓	↗
0216066B-3A3E-E311-ABD0-003048FFD732.root	3.9 GB	↓	↗
02477509-3D3E-E311-A230-00261894389A.root	3.9 GB	↓	↗
02581093-3E3E-E311-8235-00248C55CC3C.root	3.9 GB	↓	↗
0297C037-2D3E-E311-83A2-00259059649C.root	4.2 GB	↓	↗

[First](#)[Previous](#)[1](#)[2](#)[3](#)[4](#)[5](#)[Next](#)[Last](#)

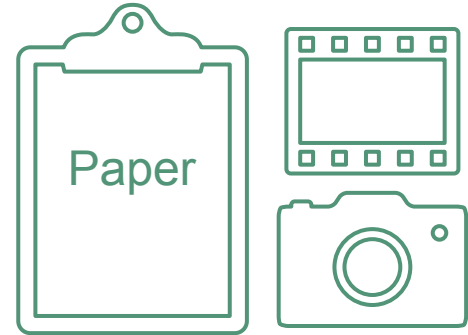
Disclaimer

The open data are released under the [Creative Commons CC0 waiver](#). Neither CMS nor CERN endorse any works, scientific or otherwise, produced using these data. All releases will have a unique DOI that you are requested to cite in any

At CERN



Processed Data



Research output

**CERN
ANALYSIS
PRESERVATION**

<http://analysispreservation.cern.ch>

REANA

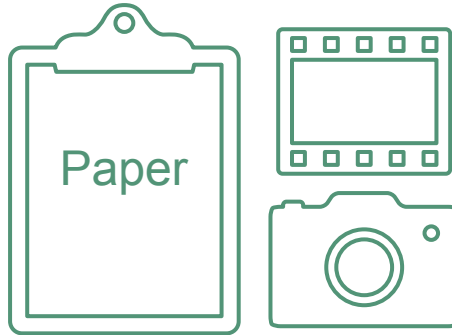
<https://reana.io>

**CERN OPEN
DATA**

<http://opendata.cern.ch>

**CERN DOCUMENT
SERVER**

<http://cds.cern.ch>



Research output

**CERN DOCUMENT
SERVER**

<http://cds.cern.ch>

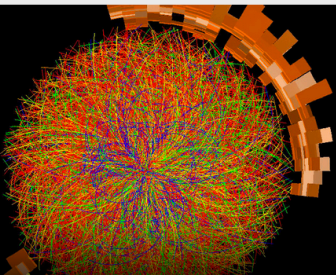
CERN Document Server

Search more than 1,000,000 records

Type and press enter to search

Articles	Books	Recent uploads
Why do you need a personal computer ?	Why do you need a personal computer ?	Why do you need a personal computer ?
Encyclopedia of physics	Encyclopedia of physics	Encyclopedia of physics
Protecting quantum logic operations by continuous application of external fields	Protecting quantum logic operations by continuous application of external fields	Protecting quantum logic operations by continuous application of external fields
Philosophical Aspects of Quantum Information Theory	Philosophical Aspects of Quantum Information Theory	Philosophical Aspects of Quantum Information Theory
Experimental Realization of Deutsch's Algorithm in a One-way Quantum Computer	Experimental Realization of Deutsch's Algorithm in a One-way Quantum Computer	Experimental Realization of Deutsch's Algorithm in a One-way Quantum Computer

Images



cdsliba.cern.ch



RECENT

MOST RECENTLY ADDED VIDEOS



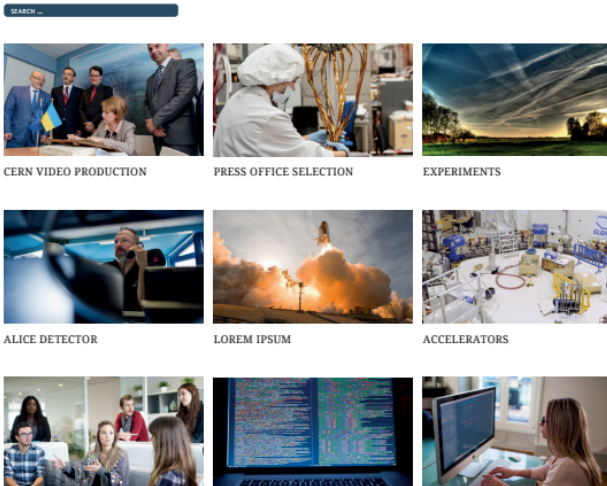
THE GLOBE OF SCIENCE

LHC OPERATIONS
A DAY IN THE CONTROLE CENTER

ACCELERATING SCIENCE

CHANNELS

MOS RECENTLY UPDATED CHANNELS



CERN VIDEO PRODUCTION

PRESS OFFICE SELECTION

EXPERIMENTS

ALICE DETECTOR

LOREM IPSUM

ACCELERATORS

LOREM DOLOR IPSUM

SOME VIDEOS

AT LHC IP2

Home > Multimedia & Outreach > Photos

Photos



16 Jan 2013. A view of the Large Magnet 180

(© CERN Geneva)

Search 17,325 records for:

Add to Search

search also CERN PhotoLab Archive of unscanned pictures (1952-2011)

Latest additions:

2017-11-14 16:35

CERN-PHOTO-201711-279

© 2017 CERN

Automnales Pictures at Paley
14-11-2017
Keywords: Miscellaneous

Detailed record - Similar records

2017-11-14 08:36

CERN-HSE-PHO-2017-007

© 2017 CERN

Safety Training Course: Terr
Cours de formation de Sécurité
10-10-2017
Keywords: TSO, HSE, Safety
Photo

Detailed record - Similar records

2017-11-10 17:09

CERN-PHOTO-201711-278

© 2017 CERN

Automnales Inauguration at Paley
10-10-2017
Keywords: Palexpo, Automnales

Detailed record - Similar records

Search

Found 38390 results. Sort by: Best match

year

Authors

- Aad, Georges (530)
- Chatrchyan, Serguei (286)
- Khachatryan, Vardan (217)
- Aaij, R (157)
- Aaij, Roel (153)
- Bottura, L (64)
- Baer, Howard (59)
- Adam, Jaroslav (55)
- Ellis, Jonathan Richard (55)
- Heinemeyer, S (40)

Languages

- eng (37796)
- fre (358)
- ita (33)
- rus (29)
- ger (17)
- chi (10)
- spa (7)
- pol (4)
- por (3)
- jpn (1)

Topic

- Particle Physics - Phenomenology (11453)
- Detectors and Experimental Techniques (11156)

Second order chromaticity correction of LHC V 6.0 at collision
1999-10-01
No summary

Experience with different constructions of superconducting coils
1998-11-11
No summary

Electrical insulation of superconducting cables and coils in LHC
1997-04-23
No summary

Status of the Cold Mass of the Short Straight Section for the LHC
1998-05-26
No summary

Measurement and Effects of the Magnetic Hysteresis on the LHC
2008-08-28
No summary

Tune scan studies for the LHC at injection energy
2000-05-22
No summary



CDS

Also used for small data

CERN Accelerating science Sign in Directory

CERN Document Server

Search Submit Help Personalize

Home > Articles & Preprints > Published Articles > First observation of $\bar{B}^0 \rightarrow J/\psi K^+ K^-$ and search for $\bar{B}^0 \rightarrow J/\psi \phi$ decays > Comments

Information Discussion (0) Files

First observation of $\bar{B}^0 \rightarrow J/\psi K^+ K^-$ and search for $\bar{B}^0 \rightarrow J/\psi \phi$ decays - Aaij, R et al - arXiv:1308.5916

Main file(s):

- prd.88.e072005
version 1 [prd.88.e072005.pdf](#) [1.32 MB] 07 Nov 2013, 15:17 *APS Open Acc*

Additional file(s):

- Related data file(s)
version 1 [Related data file\(s\).zip](#) [10.36 MB] 02 Sep 2013, 16:41

arXiv file(s):

- arXiv:1308.5916
version 4 [arXiv:1308.5916.pdf](#) [4.36 MB] 26 Oct 2013, 04:15 (see previous)

Fig15b.C Fig15b.eps Fig15b.pdf Fig15b.png
Fig16a.C Fig16a.eps Fig16a.pdf Fig16a.png

Beyond CERN



Beyond CERN

Zenodo

The screenshot shows the Zenodo website interface. At the top, there is a navigation bar with the Zenodo logo, a search bar, and links for 'Upload' and 'Communities'. The user profile 'jose benito.gonzalez@cern.ch' is visible in the top right. The main content area is titled 'Recent uploads' and lists several items:

- TTCal** by Eastwood, Michael W. (October 27, 2016) - A calibration routine for the OVRO-LWA radio interferometer.
- Mars surface image (Curiosity rover) labeled data set** by Alice Starbæk and Kiri Wagstaff (November 15, 2017) - A dataset of 4691 Mars surface images.
- Samples of solar flares classes, active regions and time of occurrence** by Gradwohl, André Leon Sampaio, Fernandes, Matheus Evers Rodrigues (November 14, 2017) - A dataset of solar flare measurements.
- Gendered effects of the Personal Income Tax: Evidence from a schedular system with individual filing in Uruguay** by Marissa Bucheli and Cecilia Olivieri (November 14, 2017) - Stata codes and a dataset supporting the results of an article.
- Mars Target Encyclopedia - LPSC abstracts labeled data set** by Raymond Francis and Kiri Wagstaff (November 14, 2017) - A dataset of annotated text versions of 2-page abstracts.

The right sidebar contains several sections:

- Zenodo now supports DOI versioning!** - A call to action to read more about DOI versioning.
- Using GitHub?** - A link to check out GitHub integration for software preservation.
- Zenodo in a nutshell** - A list of key features: Research Shared, Citable/Discoverable, Communities, Funding, and Safe.
- Tweets by @ZENODO_ORG** - A tweet announcing a new version field launch.

The Zenodo logo is prominently displayed at the bottom right of the sidebar.

Zenodo

Long tail of science

(+) 50GB uploads

Running on latest Invenio tech

Using CERN Computing Centre

Using EOS Storage Technology

Zenodo

zenodo Search Upload Communities jose.benito.gonzalez@cern.ch

Recent uploads

November 16, 2017 (v1) Dataset Open Access View

RDA IG Data Discovery Paradigms IG: Use Cases data

de Waard, Anita; Khalsa, Siri Jodha; Psomopoulos, Fotis; Wu, Mingfang

The RDA Data Discovery Paradigms IG (<https://www.rd-alliance.org/groups/data-discovery-paradigms-ig>) aims to provide a forum where representatives from across the spectrum of stakeholders and roles pertaining to data search can discuss issues related to improving data discovery. The goal is to...

Uploaded on November 16, 2017

November 8, 2017 (v1) Dataset Open Access View

Genome assemblies for "Versatile genome assembly evaluation with QUAST-LG"

Alla Mikheenko, Andrey Pribelski, Vladislav Saveliev, Dmitry Antipov, and Alexey Gurevich

Genome assemblies of Yeast (*S. cerevisiae*, genome size: 12.1 Mb): ABruijn, Canu, FALCON, MaSuRCA (from Illumina pair-ends and PacBio) Worm (*C. elegans*, genome size: 100.3 Mb): ABruijn, Canu, FALCON, MaSuRCA (from Illumina pair-ends and PacBio) Fruit fly (*D. melanogaster*, genome size: 137.6 Mb):...

Uploaded on November 15, 2017

October 27, 2016 (v1) Software Open Access View

TTCal

Eastwood, Michael W.

TTCal is a calibration routine developed for the OVRO-LWA. The standard procedure for phase calibrating a radio interferometer usually involves slewing a small number of large dishes to stare at a known point source. A point source at the phase center of the interferometer has zero phase on all...

Uploaded on November 15, 2017

November 15, 2017 (v1) Dataset Open Access View

Mars surface image (Curiosity rover) labeled data set

Alice Stanboli; Kiri Wagstaff

This data set consists of 6603 images that were collected by the Mars Science Laboratory (MSL) Curiosity rover by three...

Alice Stanboli; Kiri Wagstaff

Mars surface image (Curiosity rover) labeled data set

Zenodo now supports DOI versioning!

Read more about it, in our newest blog post.



Using GitHub?

Check out our GitHub integration. Software Preservation Made Simple!



Zenodo in a nutshell

- **Research. Shared.** — all research outputs from across all fields of research are welcome! Sciences and Humanities, really!
- **Citeable. Discoverable.** — uploads gets a Digital Object Identifier (DOI) to make them easily and uniquely citeable.
- **Communities** — create and curate your own community for a workshop, project, department, journal, into which you can accept or reject uploads. Your own complete digital repository!
- **Funding** — identify grants, integrated in reporting lines for research funded by the European Commission via OpenAIRE.
- **Flexible licensing** — because not everything is under Creative Commons.
- **Safe** — your research output is stored safely for the future in the same cloud infrastructure as CERN's own LHC research data.

Read more about Zenodo and its features.

Read more about Zenodo and its features.

- **Safe** — your research output is stored safely for the future in the same cloud infrastructure as CERN's own LHC research data.



Zenodo

New upload

Instructions: (i) Upload minimum one file or fill-in required fields (marked with a red star). (ii) Press "Save" to save your upload for editing later. (iii) When ready, press "Publish" to finalize and make your upload public.

Files Choose files Start upload

Drag and drop files here

— or —

Choose files

(minimum 1 file required, max 50 GB per dataset - contact us for larger datasets)

Upload type required

Publication Poster Presentation Dataset Image Video/Audio Software Lesson Other

Publication type

Basic information required

Digital Object Identifier
Optional. Did your publisher already assign a DOI to your upload? If not, leave the field empty and we will register a new DOI for you. A DOI allows others to easily and unambiguously cite your upload. Please note that it is NOT possible to edit a Zenodo DOI once it has been registered by us, while it is always possible to edit a custom DOI.
Reserve DOI

Publication date *
Required. Format: YYYY-MM-DD. In case your upload was already published elsewhere, please use the date of first publication.

Title *
Required.

Authors * Optional. Obsolete.

Suppliers * Optional. Obsolete.

URLs *

Zenodo

zenodo Search Upload Communities jose.benito.gonzalez@cern.ch

Home / Account / GitHub

Settings

- Profile
- Change password
- Security
- Linked accounts
- Applications
- Shared links
- GitHub**

GitHub Repositories (updated now) Sync now ...

Get started

- 1 Flip the switch**

Select the repository you want to preserve, and toggle the switch below to turn on automatic preservation of your software.

ON
- 2 Create a release**

Go to GitHub and [create a release](#). Zenodo will automatically download a .zip-ball of each new release and register a DOI.
- 3 Get the badge**

After your first release, a DOI badge that you can include in GitHub README will appear next to your repository below.

DOI 10.5281/zenodo.8475
(example)

Repositories

If your organization's repositories do not show up in the list, please ensure you have enabled [third-party access](#) to the Zenodo application. Private repositories are not supported.

indico/angular.js	<input type="checkbox"/> OFF
indico/cephalopod	<input type="checkbox"/> OFF
indico/conference-customization-2.0	<input type="checkbox"/> OFF
indico/flask-monoclit	<input type="checkbox"/> OFF
indico/conference-customization-2.0	<input type="checkbox"/> OFF

Zenodo

[Upload](#)[Communities](#)[jose.benito.gonzalez@cern.ch](#)

November 18, 2017

Software Open Access

ligo-cbc/pycbc: post-O2 release 3

Alex Nitz; Ian Harry; Duncan Brown; Christopher M. Biwer; Josh Willis; Tito Dal Canton; Larne Pekowsky; Thomas Dent; Andrew R. Williamson; Collin Capano; Soumi De; Miriam Cabero; Bernd Machenschalk; Prayush Kumar; Steven Reyes; Thomas Massinger; Amber Lenon; Stephen Fairhurst; Alex Nielsen; shasvath; Francesco Pannarale; Leo Singer; Duncan Macleod; Stanislav Babak; Hunter Gabbard; John Veitch; CBC Sugar; Sebastian Khan; dfinstad; Lorena Magaña Zertuche

This is the third post-O2 release of PyCBC for analysis of data taken during Advanced LIGO's second observing run and Advanced Virgo's first observing run.

This release has been tested against LALSuite with the hash:

```
95ad957cee1a37b7fc3128883d8b723556f9ec38
```

This release updates the qtransform feature set and adds an interface to access data and information about the catalog of gravitational wave mergers.

Details of the changes since the last release are at <https://github.com/ligo-cbc/pycbc/compare/v1.8.1...v1.8.2>

A Docker container for this release is available from the [pycbc/pycbc-el7](#) repository on Docker Hub be downloaded using the command:

```
docker pull pycbc/pycbc-el7:v1.8.2
```

On a machine with CVMFS installed, a pre-built virtual environment is available for Red Hat 7 compatible operating systems by running the command:

```
source /cvmfs/oasis.opensciencegrid.org/ligo/sw/pycbc/x86_64_rhel_7/virtualenv/pycbc-v1.8.2/bin/activate
```

and for Debian 8 compatible operating systems by running the command:

```
source /cvmfs/oasis.opensciencegrid.org/ligo/sw/pycbc/x86_64_deb_8/virtualenv/pycbc-v1.8.2/bin/activate
```

A bundled `pycbc_inspirall` executable for use on the Open Science Grid is available at

```
/cvmfs/oasis.opensciencegrid.org/ligo/sw/pycbc/x86_64_rhel_6/bundle/v1.8.2/pycbc_inspirall
```

Preview

pycbc-v1.8.2.zip

ligo-cbc-pycbc-811e3d4

- gitignore 95 Bytes
- .landscape.yml 324 Bytes
- .travis.yml 21.8 kB
- Dockerfile 71 Bytes
- INSTALL 2.5 kB
- LICENSE 35.1 kB
- MANIFEST.in 122 Bytes
- README.md 2.0 kB
- bin
 - bank

Available in

GitHub

Publication date:

November 18, 2017

DOI:

DOI 10.5281/zenodo.1058970

Related identifiers:

Supplement to:

<https://github.com/ligo-cbc/pycbc/tree/v1.8.2>

License (for files):

[Other \(Open\)](#)

Versions

Version v1.8.2	Nov 18, 2017
10.5281/zenodo.1058970	
Version v1.8.1	Sep 8, 2017
10.5281/zenodo.888262	
Version v1.8.0	Sep 8, 2017
10.5281/zenodo.887622	
Version v1.7.11	Sep 1, 2017
10.5281/zenodo.883086	
Version v1.7.10	Aug 28, 2017
10.5281/zenodo.852372	

[View all 48 versions](#)

Cite all versions? You can cite all versions by using the DOI 10.5281/zenodo.596388. This DOI represents all versions, and will always resolve to the latest one. [Read more.](#)



Zenodo

<http://developers.zenodo.org/>

zenodo

Developers

[About](#) [Blog](#) [Help](#) [Developers](#)

Search

REST API

- Introduction
- Quickstart - Upload
- Testing
- Versioning
- Authentication
- Requests
- Responses
- HTTP status codes
- Errors

Entities

OAI-PMH

Privacy policy
Terms of Use
Contact

- Now, let's upload a new file:

- Last thing missing, is just to add some metadata:

Python cURL

```
Python cURL
/

>> # Get the deposition id from the previous response
>> deposition_id = r.json()['id']
>> data = {'filename': 'myfirstfile.csv'}
>> files = {'file': open('/path/to/myfirstfile.csv', 'rb')}
>> r = requests.post('https://zenodo.org/api/deposit/depositions/%s/files' % deposition_id,
..                   params={'access_token': ACCESS_TOKEN}, data=data,
..                   files=files)
>> r.status_code
01
>> r.json()
```

```
{
  "filename": "myfirstfile.csv",
  "id": "eb78d50b-ecd4-407a-9520-dfc7a9d1ab2c",
  "filesize": "27"
}
```

```
>>> data = {
...   'metadata': {
...     'title': 'My first upload',
...     'upload_type': 'poster',
...     'description': 'This is my first upload',
...     'creators': [{'name': 'Doe, John',
...                   'affiliation': 'Zenodo'}]
...   }
... }
>>> r = requests.put('https://zenodo.org/api/deposit/depositions/%s' % deposition_id,
...                  params={'access_token': ACCESS_TOKEN}, data=json.dumps(data),
...                  headers=headers)
>>> r.status_code
```

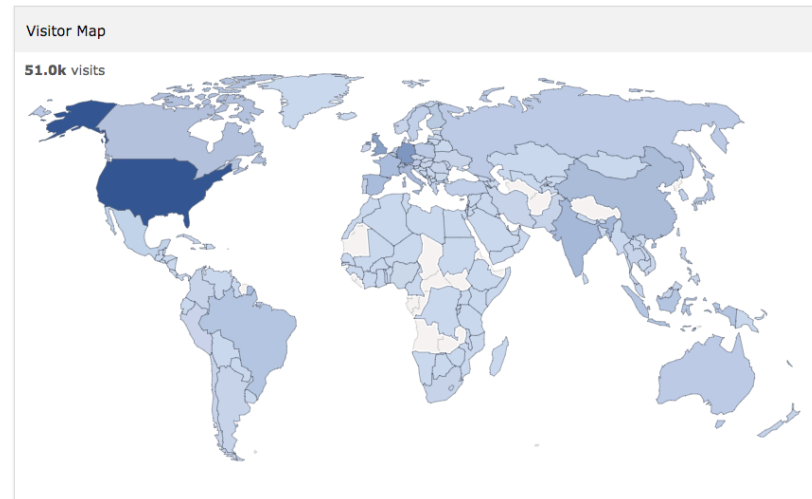
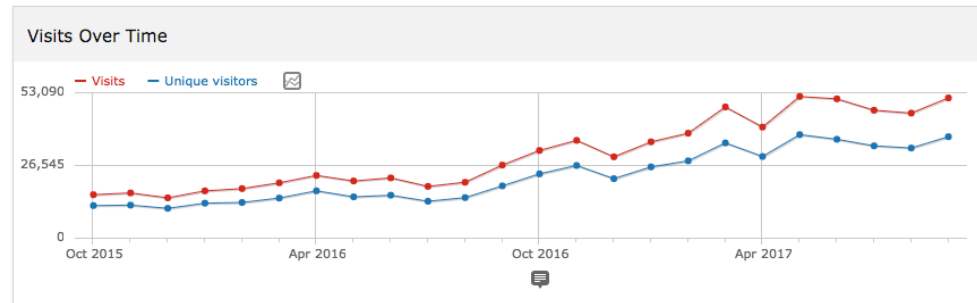

Zenodo

50K

Monthly visitors

30 TB

Stored Files



Are DR important?

- Open Science is about de-duplication and efficiency
- We need to store all research objects properly
 - SW, data, documentation, articles, etc
- Journals publish those articles and start linking to related objects
 - 5 publishers control ~70% of market
 - Profits are bigger than Google and co
- Good Research depends on Open Accessible Science
- Invenio helps building repositories of all kinds

Challenges

- Replicate published work = “Crisis”
 - Wider sharing and reanalysis of code, data, and research materials...All objects have persistent identifiers
 - interactive and more transparent ways of presenting data graphically (e.g. building graphs)
- Open access publishing (breaking The Wall)
- Interoperability between repositories (COAR and NGR)
- Predatory publishers
 - How to differentiate good research from fake research
- Mapping research? Where? Who? how?

How we can help making open science better and easier?

Please, solve this :)

Questions?



<https://inveniosoftware.org>

<http://github.com/inveniosoftware>

<https://invenio.readthedocs.io/en/latest/>

CERN DOCUMENT SERVER

CERN OPEN DATA

CERN ANALYSIS PRESERVATION

ZENODO

B2SHARE

OAIS ARCHIVAL STORE

REANA

INSPIRE, HEP DATA, SCOPE3

60 INSTALLATIONS
WORLD WIDE

INVENIO



OAI Archival Store

Long term preservation

Using Archivematica (FOSS)

Integration done through Invenio module

Intend to integrate with CDS & Zenodo &...

<https://github.com/CERN-E-Ternity>