

The PHENIX DAP update

Maxim Potekhin
(BNL, NPPS)
06/04/2020

Overview

- Continued to upload material to Zenodo@CERN
 - Moved a few large files to Zenodo, reduced the website repo size by >100MB
 - More materials moved to the “documentation” repository on GitHub
- The DAP website:
 - Goal: to simplify site building further for future contributors
 - The logic of document references - somewhat inconsistent before - has been significantly improved: one central registry queried in a number of ways
 - Zenodo and overview sections added under “Resources”
 - Keywords page stubbed out
 - Website cosmetics improved
- DAP workshop (CERN-EIC) on Tuesday, June 2nd
 - Impressions?
 - Need to revisit available tools in more detail

Zenodo references in individual pages, old style

[![DOI](https://zenodo.org/badge/DOI/10.5281/zenodo.3836478.svg)](https://doi.org/10.5281/zenodo.3836478)

[![DOI](https://zenodo.org/badge/DOI/10.5281/zenodo.3836538.svg)](https://doi.org/10.5281/zenodo.3836538)

[![DOI](https://zenodo.org/badge/DOI/10.5281/zenodo.3836568.svg)](https://doi.org/10.5281/zenodo.3836568)


Consolidating references

- Having direct references (links) to Zenodo and other external resources on individual pages works but
 - Links can be hard to read and cumbersome
 - Hard to find where and what was referenced
 - If cited on multiple pages the link code is repeated
 - Can't use selection by keywords etc when building pages
- There was already a registry of document on the site
- Now it's been improved to contain all references to all materials and some automation added to generate links based on the context
- Result: simpler and consistent code and better discovery of documents by keywords, on the site

Zenodo links declaration, old style (still better than the direct links)

```
- name: '![DOI](https://zenodo.org/badge/DOI/10.5281/zenodo.3840266.svg)](https://doi.org/10.5281/zenodo.3840266)'  
  title: The PHENIX Experiment at RHIC - Decadal Plan 2004-2013  
  author: W.Zajc  
  venue:  
  type: document  
  category: overview  
  format: markdown_link  
  date: 11/01/2003  
  
- name: '![DOI](https://zenodo.org/badge/DOI/10.5281/zenodo.3842204.svg)](https://doi.org/10.5281/zenodo.3842204)'  
  title: The PHENIX Experiment at RHIC - Decadal Plan 2011-2020  
  author: B.Jacak  
  venue:  
  type: document  
  category: overview  
  format: markdown_link  
  date: 10/01/2010
```

Zenodo links declaration, new style

```
- name: 3840266   
  title: The PHENIX Experiment at RHIC - Decadal Plan 2004-2013  
  author: W.Zajc et al  
  venue:  
  resource: zenodo  
  type: document  
  category: overview  
  format: markdown_link  
  date: 11/01/2003
```

Adding a link to the page by referencing these data is now very easy:

```
{% include navigation/zenodo.md item=item %}
```

```
- name: 3842204  
  title: The PHENIX Experiment at RHIC - Decadal Plan 2011-2020  
  author: B.Jacak et al  
  venue:  
  resource: zenodo  
  type: document  
  category: overview  
  format: markdown_link  
  date: 10/01/2010
```

Updated logic of document references

```
{% include documents/doc.md title=item.title category='detector' type='thesis' tag='brian_love_thesis' %}  
{% include documents/doc.md title=item.title category='detector' type='thesis' tag='hugo_valle_thesis' %}  
{% include documents/doc.md title=item.title category='detector' type='thesis' tag='ron_belmont_thesis' %}
```


- Can also fetch by **other keywords** (can defined as many as you want)
- Badges and links are automatically generated
- See the result below (badges are clickable on the page)

- DOI [10.5281/zenodo.3836478](https://doi.org/10.5281/zenodo.3836478) The Design, Implementation, and Performance of the PHENIX Time-of-Flight West Detector (Brian Love)
- DOI [10.5281/zenodo.3836538](https://doi.org/10.5281/zenodo.3836538) Source dynamics from deuterons and anti-deuterons in 200 GeV Au+Au collisions (Hugo Valle)
- DOI [10.5281/zenodo.3836568](https://doi.org/10.5281/zenodo.3836568) Measurements of identified hadrons in Au+Au and d+Au collisions at 200 GeV (Ron Belomont)

Document registry entries for the example above

```
- name: 3836538
  title: Source dynamics from deuterons and anti-deuterons in 200 GeV Au+Au collisions
  tags: [tofw, hugo_valle_thesis]
  author: Hugo Valle
  venue:
  resource: zenodo
  type: thesis
  category: detector
  format: markdown_link
  date:

- name: 3836478
  title: The Design, Implementation, and Performance of the PHENIX Time-of-Flight West Detector
  tags: [tofw, brian_love_thesis]
  author: Brian Love
  venue:
  resource: zenodo
  type: thesis
  category: detector
  format: markdown_link
  date:
```



References to the legacy site - should they be deprecated in favor of Zenodo? (...yes)

[Brian Love's M.S. Thesis]

(https://www.phenix.bnl.gov/phenix/WWW/talk/archive/theses/2009/Love_Brian-thesis_BrianLove.pdf)

[Hugo Valle's Ph.D. Thesis]

(https://www.phenix.bnl.gov/phenix/WWW/talk/archive/theses/2008/Valle_Hugo-thesisHugoValle.pdf)

The DAP round table (EIC-CERN) June 2nd 2020

- Relatively little new material compared to the Fall'19 workshop (attended by Gabor, Maxim and Takahito plus Torre of NPPS)
- Need to revisit the tools and practices
- Ideally, create an analysis for testing with REANA
- CERN Open Data Portal: <http://opendata.cern.ch/>
 - Based on the same platform as Zenodo
 - Different from Zenodo in that it is a specialized platform for HEP as opposed to the generic open research repository - customized data categories and UI geared towards HEP
 - Communities (i.e. experiments) are effectively hardcoded/predefined in the UI
 - An intriguing additional tool PHENIX can leverage (but doesn't have to)
 - Need to better understand use cases vs Zenodo

CERN Open Data Portal: sample screenshot

The screenshot displays the CERN Open Data Portal interface. At the top, there is a search bar with the text "Search" and a magnifying glass icon. To the right of the search bar is a link labeled "About". Below the search bar, the main content area is divided into two columns. The left column contains filters for the search results, including "Filter by type", "Filter by experiment", "Filter by year", "Filter by file type", and "Filter by collision type". The right column displays the search results, which are sorted by "Best match" and displayed in "detailed" view. The results list includes:

- ATLAS Software for 2016 open data release**: This is an Analysis Framework that is composed of a set of python macros with the objective to manage the reading and analysis of the samples of the 2016 open data release. The Framework...
Buttons: Software Framework ATLAS
- ATLAS Virtual Machine Version N for 2016 open data release**: This set of Virtual Machines (VM) allows you to obtain a computer environment that emulate as much as possible that one use for a particle physicist. Each VM contain ROOT as base software pl...
Buttons: Environment VM ATLAS
- Dataset from the ATLAS Higgs Boson Machine Learning Challenge 2014**: The dataset has been built from official ATLAS full-detector simulation, with "Higgs to tauau" events mixed with different backgrounds. The simulator has two parts. In the first, random proton-...
Buttons: Dataset Derived ATLAS
- Diboson process ZZ**: The ATLAS open data dataset is comprised of real data recorded with the ATLAS detector in 2012 and matching simulated data. Both real and simulated data is subjected to a loose event preselect...
Buttons: Dataset Simulated ATLAS
- Single top t-channel antitop**: The ATLAS open data dataset is comprised of real data recorded with the ATLAS detector in 2012 and matching simulated data. Both real and simulated data is subjected to a loose event preselect...

The search results are found 125 results.

Summary and plans

- We are following the plans previously made
 - Added “Keywords” and “Zenodo” pages
- The DAP website is getting into a better shape with simpler ways to compose pages (i.e. updated document reference system)
- Can students help with theses uploads?
- As planned, making use of the “documentation” repo
- As usual... need more material for the site
- Will revisit thoroughly the DAP tools and platforms developed and deployed at CERN
 - cf. recent HEPdata initiative by Christine et al - we'll see how to incorporate this into the website and elsewhere
 - REANA