The DAP site, Zenodo outlook and hosting of materials

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The DAP website progress

- Thanks to Deepali and Ron for their contributions
- Improvements in the site mechanics
  - New logic of menu and item description organization - see next slides
  - The appearance of the site didn't change after this update (just added a logo)

DAP site 1.0

- Content and elements of layout kept in the "front matter" section i.e. the header of each file

---
Page_title: XYZ
Description: ABC
Other_info: abcdef
Weight: 123

- This works well for small sites but doesn't scale well
- Structure and content mixed

DAP site 2.0

- Content and elements of layout separated and kept in "database files" which are easy to understand and to edit e.g. move around the menu content
-

Example of the dropdown menu (detector section)

```
- name: detectors
  full: Detectors
  submenus:
  -
      name: detectors_overview
      full: Detectors Overview
  -
      name: phenix_photo_gallery
      full: PHENIX Photo Gallery
  -
      name: run_configuration_gallery
      full: Run Configuration Gallery
  -
      name: central_arm
      full: Central Arm Detectors
      div: yes
  -
      name: muon_arm
      full: Muon Arm Detectors
  -
      name:  event_characterization
      full: Event Characterization Detectors
  -
      name: magnet
      full: Magnet
      div: yes
```

File: _data/menu.yml

Ordering of detector items, titles, roles - detectors.yml - no more "weights" for ordering

```
### Muon Arm:
- title: Muon Tracker
  role: Measures the position and momentum of muon particles.
  abbrev: muon_tracker
  category: muon

- title: Muon Identifier
  role: Identifies muon particles.
  abbrev: muon_identifier
  category: muon

- title: Muon Piston Calorimeter
  role: Identifies energy deposited in the forward direction.
  abbrev: muon_piston
  category: muon
```

File: _data/detectors.yml

The site (landing page) after the update

The DAP website - what's next

- Will finish cleanup after recent changes
- Do we have contributions lined up to other sections i.e. in addition to what Ron and Deepali are doing?
  - I can accept contribution in any shape, form or format, anything - there is a lot missing in the detector sections etc
  - Will return to the work item: adding a template for analysis pages
  - Should we consider Zenodo as a vehicle for "mini-analysis notes"? - this might be easier for users than editing content for the site
- Let's be mindful of various repo/storage limits on GitHub
  - We don't really want to include a digital repository into the site, leveraging Zenodo is a vastly better solution (see the final slide)

Zenodo Community - good practice put in place

Zenodo Community Issues

- Got additional assurance from CERN that Zenodo is a durable and permanent solution - good news… but there are issues -
- Once a document is accepted to the community the metadata is still controlled by the submitter and cannot be changed by the community manager
  - Perhaps submitting all PHENIX documents from a prod account would be better?
- Not clear how much progress will be made this year wrt community management sharing/transfer with all the COVID-related pressure
- Should we consider a do-over i.e. create a prod account shared by people on the DAP team and manage submissions AND community from it?

Zenodo site selection

- Driven by the COVID-19 research effort at BNL a Zenodo instance was created locally (not anticipated or expected a few months ago)
- A meeting took place on 4/30/2020 to discuss prospects for PHENIX, EIC and sPHENIX - no decisions made just yet - PHENIX perspective was presented
- Preliminary statement from SDCC is that they can and will commit to creating and maintaining an instance if needed
  - How much do we care about data localization?
- The sticky point is the migration path to Invenio RDM
  - Assurance from the CERN devs that once this is done there will be no changes for the user
- Question - do we stay at CERN or start using a local BNL instance?
  - If we don't care about the location of the site CERN could be a preferable solution
  - In the short term BNL support is not likely to match what's available at CERN, and local installation was not standard

Copyright and 3rd party site hosting

- arXiv seems to be fine as a resource we can link to
- We should probably replace the current hosted content e.g. NIM papers on the site with bibliographic references
  - Certain publishers are quite restrictive even for non-commercial use
  - Can't have it on Zenodo either
- Ideas?
- NB. committing theses to Zenodo seems to work great, thanks to Ron for creating references on the site (next slide)
- Can unload a lot of material to Zenodo (the kind that does not involve copyright concerns)

Zenodo Community - already used on the site

At either side (longitudinally) of the gaps are electrodes held at +/- 7 kV for a total potential difference of 14 kV across the gaps. Outside of the electrodes on either side (longitudinally) are sets of four copper strips that are read out on either side, for a total of 8 readout channels per MRPC. When charged particles cross the gap, the gas is ionized. The charge in the gas is imaged in the strips. The induced charge in the strips is read out on either end (transversely). Each strip is about 37 cm long and 2.8 cm wide. The lengthwise location of the hit in the strip is determined via the difference in time on either end. Since the strip is only 1 inch wide, the widthwise location of the hit is taken to be the center of the strip.

The System

The TOFW system consists of four boxes. Each box subtends 11.5 degrees in azimuth and 0.35 units in pseudorapidity. There are two boxes in sector 1 and two boxes in sector 2, with each sector receiving full coverage in pseudorapidity and half coverage in azimuth. Each box has four high voltage busses in two rows. Each high voltage buss powers 8 MRPCs, for a total of 32 per box and 128 total, meaning there are 1024 readout channels in total.

Archived papers

PHENIX Time-of-flight detector West (TOFW) – Detector Basics
DOI 10.5281/zenodo.3763901 Brian Love's M.S. Thesis
DOI 10.5281/zenodo.3763871 Hugo Valle's Ph.D. Thesis
DOI 10.5281/zenodo.3763862 Ron Belmont's Ph.D. Thesis

Variables and Accessors

These "get" methods give access to the TOFW variables used for analysis. The variable type, name of the get method, and a brief description are given below.

Summary

- DAP site + Zenodo = solid and cohesive platform
- Should we re-launch the Zenodo community?
- Need contributions!

Post-meeting summary

- Large files (e.g. PDF files of thesis, papers, etc) will be moved from DAP site to Zenodo. The DAP site only keep the link (DOI)
- For journal papers (e.g. NIM papers of PHENIX subsystems) DOI of the publication will be kept in the DAP site. For other files stored in the Zenodo, the Zenodo generated DOI will be kept in the DAP site
- Production version of the Zenodo PHENIX community is (re-)built
- All agreed that CERN Zenodo instance is better than BNL instance. But we will decide after discussion with SDCC and others which Zenodo we use (i.e. PHENIX community)