Status of the PHENIX website migration and other DAP items

Maxim Potekhin
(BNL, NPPS)
09/03/2020

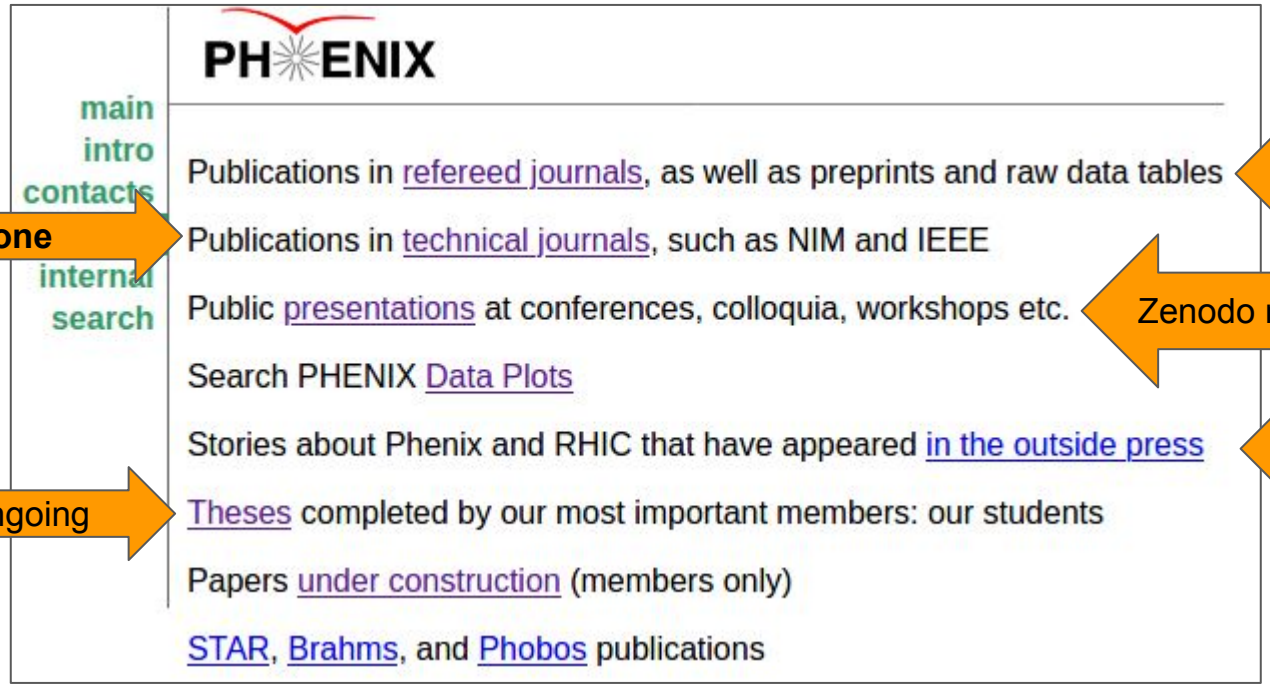
The website migration: started in 2019

- Migration effectively started a long time ago e.g. general logic of material placement for DAP (in particular in the detector section) and some content was borrowed directly from the legacy site
- In the past ~12 month, collection and migration of run, trigger and other information and other materials to the DAP site, from multiple sources

The website migration: the public page issues

- Motivations and status presented at the previous meeting
- Recently discovered that the hardware-related “focus slides” were omitted
  - Now have uploaded ~20 extra presentations, indexed and automatically included on pages
  - All the detector subsystem page on the DAP site now have at least some material
  - Also found some other previously missing papers
  - **Done**
- Links on the public page:
  - The “plots” page is now considered internal (which makes sense)
  - “Publications” - adequately handled by properly formed InspireHEP links
  - Tech notes/references - **migrated** in the past two weeks. Done!
  - Conference talks - work in progress (perhaps need to touch upon some details)
  - The active members list and contact info migrated. Done!
  - Speakers Bureau re-classified as internal

The “results” page: critical path for migration



Done

Ongoing

Replaced by Inspire. **Done**.

Zenodo material? Started uploads...

Broken. Do we need this?

The tech publication page: migration complete

PHENIX technical publications

PHEN hardware seri	**PHENIX detector overview**	K. Adcox et al.,	NIM A499 469-479 (2003) pdf, ps
	PHENIX magnet system	S.H. Aronson et al.,	NIM A499 480-488 (2003) pdf, ps
	PHENIX central arm tracking detectors	K. Adcox et al.,	NIM A499 489-507 (2003) pdf, ps
	PHENIX central arm particle I.D. detectors	M. Aizawa et al.,	NIM A499 508-520 (2003) pdf, ps
	The PHENIX calorimeter	L. Aphecetche et al.,	NIM A499 521-536 (2003) pdf, ps
	PHENIX muon arms	H. Akikawa et al.,	NIM A499 537-548 (2003) pdf, ps
	PHENIX inner detectors	M. Allen et al.,	NIM A499 549-559 (2003) pdf, ps
	PHENIX on-line systems	S.S. Adler et al.,	NIM A499 560-592 (2003) pdf, ps
	PHENIX on-line and off-line computing	S.S. Adler et al.,	NIMA499 593-602 (2003) pdf, ps
	The complete volume	Edited by M. Harrison, T. Ludlam and S. Ozaki,	Volume 499, Issues 2-3, Pages 235-880 (1 March 2003) The Relativistic Heavy Ion Collider Project: RHIC and its Detectors

HE **"Design, Construction, Operation and Performance of a Hadron Blind Detector for the P**
W. Anderson et al. Mar 2011. 51pp. arXiv:1103.4277

RXN **"A reaction plane detector for PHENIX at RHIC"**,
E. Richardson et al., Nucl. Inst. and Meth. A 636 (2011) pp. 99-107

GEM HE for PHEN A. Kozlov etr al., Development of a triple GEM UV-photon detector operated in pure CF4 for the P

Pad Chamb Constructi **"Construction and performance of the PHENIX pad chambers"**,
Anders Oskarsson et al.
Nuclear Inst. and Methods in Physics Research A497/2-3, pp 263 - 293 (2003)

"The pixel readout system for the PHENIX pad chambers",
Paul B. Nilsson for the PHENIX pad chamber group.
Nuclear Physics A661, (1999) 665: pdf

Silicon Upgra **"Vertex detector upgrade plans for the PHENIX experiment at RHIC"**,
Johann Heuser et al.
Nuclear Inst. and Methods in Physics Research A511/1-2, pp 210-214 (September 2003)
pdf at Elsevier, pdf at Phenix

Muon alignme **"Optical Alignment System for the PHENIX Muon Tracking Chambers"**,

Collaboration | Experiment | Detectors | Software | Analysis | Resources

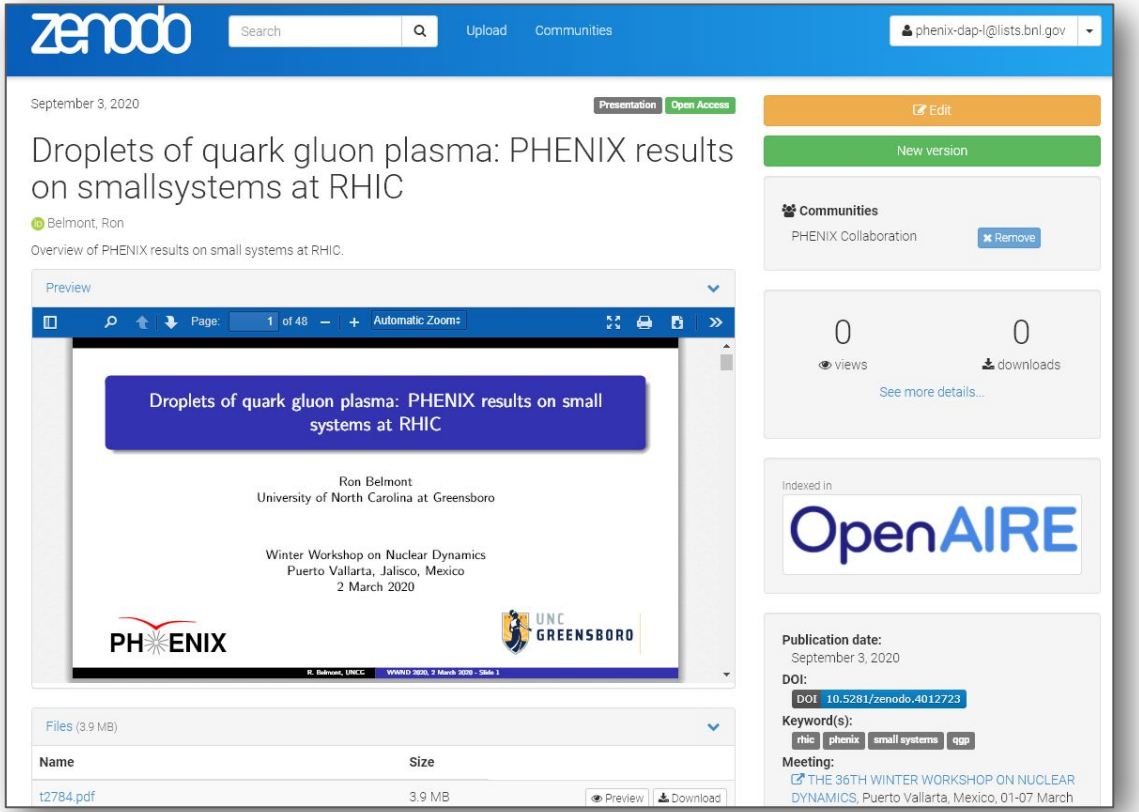
General Overviews

- PHENIX Detector Overview (NIM A 499, 2003, doi.org/10.1016/S0168-9002(02)01950-2)

Detector Subsystems

- DOI 10.5281/zenodo.3966470 Performance of PHENIX HBD in Au+Au central collisions (QM2011 poster) (Yosuke Watanabe)
- Ring imaging Cherenkov detector of PHENIX experiment at RHIC (NIM A 433, 1999, doi.org/10.1016/S0168-9002(99)00319-8)
- GEM: A new concept for electron amplification in gas detectors (NIM A 386, 1997, doi.org/10.1016/S0168-9002(96)01172-2)
- Optical alignment system for the PHENIX muon tracking chambers (NIM A 500, 2003, doi.org/10.1016/S0168-9002(03)00318-8) arXiv:nucl-ex/0212027
- Vertex detector upgrade plans for the PHENIX experiment at RHIC (NIM A 511, 2003, doi.org/10.1016/S0168-9002(03)01795-9)
- The pixel readout system for the PHENIX pad chambers (NIM A 661, 1999, doi.org/10.1016/S0375-9474(99)85113-6)
- Construction and performance of the PHENIX pad chambers (NIM A 497, 2003, doi.org/10.1016/S0168-9002(02)01791-6)
- PHENIX Calorimeter (NIM A 499, 2003, doi.org/10.1016/S0168-9002(02)01954-X)
- PHENIX Inner Detectors (NIM A 499, 2003, doi.org/10.1016/S0168-9002(02)01956-3)
- PHENIX Magnet System (NIM A 499, 2003, doi.org/10.1016/S0168-9002(02)01951-4)
- PHENIX Muon Arms (NIM A 499, 2003, doi.org/10.1016/S0168-9002(02)01955-1)
- Front-end electronics for PHENIX time expansion chamber (2001 IEEE Nuclear Science Symposium Conference Record (Cat. No.01CH37310), doi.org/10.1109/NSSMIC.2001.1008528)
- Low-mass Drift Chambers of the PHENIX central spectrometers at RHIC (NIM A 494, 2002, doi.org/10.1016/S0168-9002(02)01464-X)
- PHENIX Central Arm Tracking Detectors (NIM A 499, 2003, doi.org/10.1016/S0168-9002(02)01952-6)
- PHENIX Central Arm Particle ID Detectors (NIM A 499, 2003, doi.org/10.1016/S0168-9002(02)01953-8)
- A large-acceptance spectrometer for tracking in a high-multiplicity environment, based on space point measurements and high-resolution time-of-flight (NIM A 431, 1999, doi.org/10.1016/S0168-9002(99)00261-2)
- A reaction plane detector for PHENIX at RHIC (NIM A 636, 2011, doi.org/10.1016/j.nima.2011.01.034) arXiv:1012.0873
- Design, construction, operation and performance of a Hadron Blind Detector for the PHENIX experiment (NIM A 646, 2011, doi.org/10.1016/j.nima.2011.04.015) arXiv:1103.4277

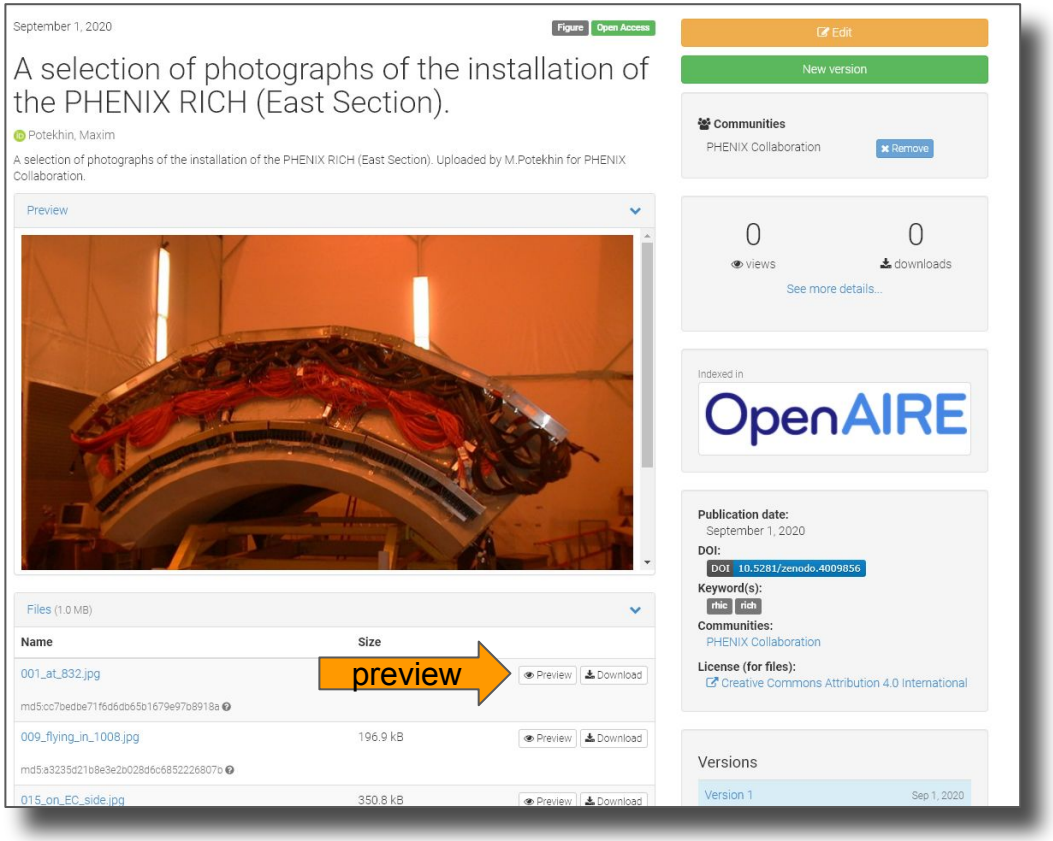
An example of a conference talk published on Zenodo



Visual Materials (photo and video)

- Not too important for analysis but adds a friendly touch
  - Educational: students would benefit from such orientation as the detector itself is gone
- The website itself is not a very good container for that
  - But we have Zenodo!
- Recent Zenodo uploads
  - Videos (virtual tours of PHENIX, RHIC and the Spin Program)
  - A gallery of the RICH Installation
- Added some magnet pics
- In general, this is the last time to capture this before material is gone - some links are already broken - so will continue this activity

An example of a photo gallery published on Zenodo



Improved the appearance of the site

- Adjusted the navigation bar
- Cleaned up the UI code
- Switched to the color scheme used by the Bootstrap framework
- Added responsive buttons to the run navigation bar

Recent additions

- Analysis chains (starting with muon arm J/psi) - thanks Gabor
  - One more recent addition
  - Comment - legacy links to www.phenix.gov
- The J/psi paper contains references to sPHENIX software, are we OK with it?

Hosting at BNL

- We are enjoying free hosting on GitHub
- However it is helpful use the domain *phenix.bnl.gov*
  - Most easily achieved by placing the pre-generated site on a BNL server
  - Security is not a concern so should move through Cyber quickly
- The site was looked at by Chris and Mizuki with a favorable feedback
- Will establish the release schedule
- Can we get the deployment done before the DOE site visit as a reportable milestone?
- Hidden or implicit links need to be looked at (cf. the CVS browser link still goes to phenix.bnl.gov)
  - Solution - design a nice custom 404 page explaining that certain services are available for PHENIX members on the internal site

Software preservation

- Flagged as an item of interest for the upcoming DOE site visit
- What can be reported
  - Containerization of the production environment - this was discussed with Chris and SDCC on Wed 9/2/2020 and a few details were clarified
  - In practice, preservation of images on CVMFS should probably be enough (i.e. not committing this to Zenodo)
  - Upcoming analysis chain documentation and other use cases (e.g. Takashi's analysis chain which I'm still hopeful I can bring into shape)
  - Containerization of analysis will likely not be within our reach

Summary

- Our Zenodo cache of material doubled in the past two weeks
- We are almost ready for real migration i.e. to move to phenix.bnl.gov
  - Need to resolve the issue of legacy link like the CVS browser etc
  - A “nice to have item” - mobile site - at present the new site only works on desktops and laptops
- A few remaining work items can still progress (e.g. conference talks)
- Collection and submission to Zenodo and HEPData will continue
- Recent analysis chain effort by Gabor et al is much appreciated
- ...these slides will be uploaded to GitHub as is customary