

# Next Steps

*Integration Committee*

*July 2, 2021*

# UPDATES

# Meeting with Elke on Engineering Support

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- Engineers are a hot commodity
- If (?) DWG/Consortia/Subsystems have engineering work going on, please tell Elke. This avoids duplicate efforts.
- **Project has engineers to help us**
  - ▶ they are extremely busy
  - ▶ please send email to Elke and request meeting with engineer for your subsystem
  - ▶ Elke will arrange meeting with the corresponding engineer
  - ▶ Provide necessary spec sheets to make meeting more efficient
  - ▶ Have concrete question prepared
- Strongly suggest to start a.s.a.p. so DD4hep implementation is realistic and within bounds.

N.B. There are concerns that info distributed by project does not get to the right people. If you receive info that is also valuable to others please distribute. For info distribution see next pages.

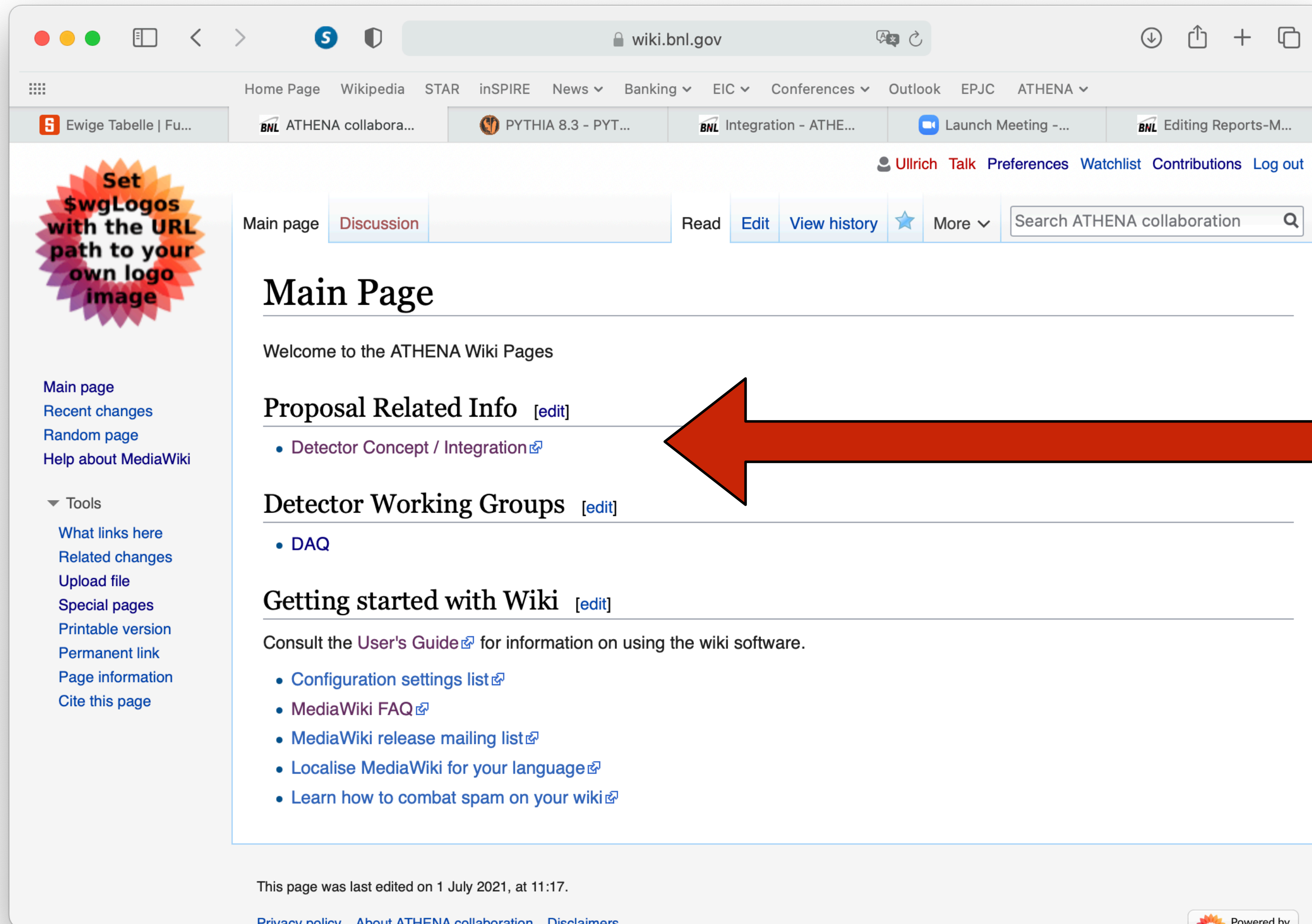
# New Configuration Labels: B, P, N

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- Need unambiguous ID of specific configuration.
- Label according to their coverage (using existing letters from software group)
  - ▶ B = Barrel
  - ▶ P = forward, Positive endcap
  - ▶ N = backward, Negative endcap
- Followed by a two-digit version number M.N
  - ▶ M defines specific subsystem composition (change if subsystem add or remove)
  - ▶ N labels the geometry(e.g. pixel size, thickness, service material etc) are changed within a given overall configuration M.
- If needed the software group can add a 3rd number (M.N.V) for software version or the like - up to them

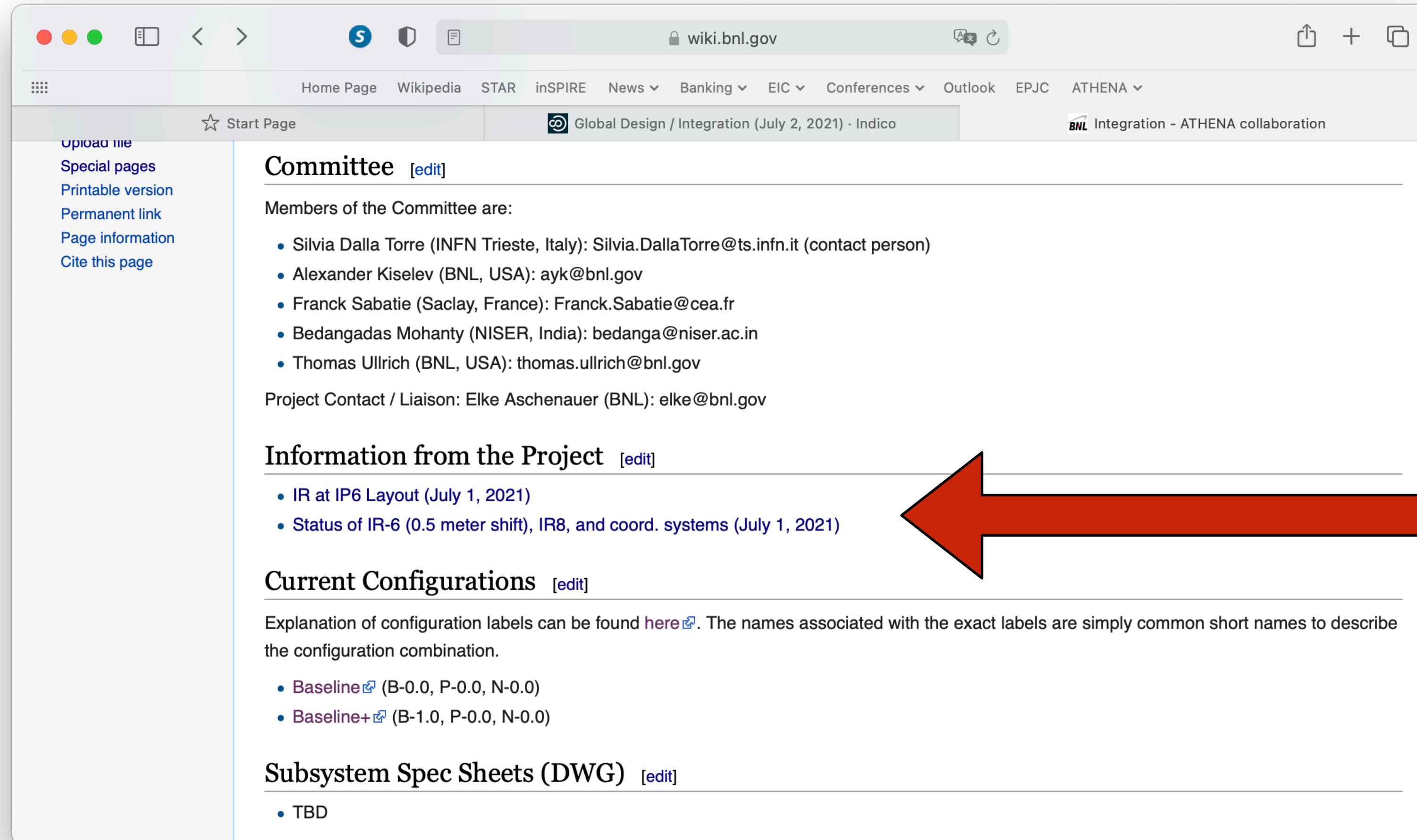
# ATHENA Wiki

- <https://wiki.bnl.gov/athena>
- Access rights: Ask Maxim for group (DWG convener) logins



This effort

# ATHENA Wiki / Integration Page



The screenshot shows a web browser window displaying the 'Integration' page on the ATHENA Wiki. The browser's address bar shows 'wiki.bnl.gov'. The page has a navigation menu at the top with links like 'Home Page', 'Wikipedia', 'STAR', 'inSPIRE', 'News', 'Banking', 'EIC', 'Conferences', 'Outlook', 'EPJC', and 'ATHENA'. Below the navigation, there are tabs for 'Start Page' and 'Global Design / Integration (July 2, 2021) - Indico'. The main content area is divided into sections: 'Committee', 'Information from the Project', 'Current Configurations', and 'Subsystem Spec Sheets (DWG)'. A large red arrow points from the right side of the page towards the 'Information from the Project' section.

**Committee** [\[edit\]](#)

Members of the Committee are:

- Silvia Dalla Torre (INFN Trieste, Italy): [Silvia.DallaTorre@ts.infn.it](mailto:Silvia.DallaTorre@ts.infn.it) (contact person)
- Alexander Kiselev (BNL, USA): [ayk@bnl.gov](mailto:ayk@bnl.gov)
- Franck Sabatie (Saclay, France): [Franck.Sabatie@cea.fr](mailto:Franck.Sabatie@cea.fr)
- Bedangadas Mohanty (NISER, India): [bedanga@niser.ac.in](mailto:bedanga@niser.ac.in)
- Thomas Ullrich (BNL, USA): [thomas.ullrich@bnl.gov](mailto:thomas.ullrich@bnl.gov)

Project Contact / Liaison: Elke Aschenauer (BNL): [elke@bnl.gov](mailto:elke@bnl.gov)

**Information from the Project** [\[edit\]](#)

- [IR at IP6 Layout \(July 1, 2021\)](#)
- [Status of IR-6 \(0.5 meter shift\), IR8, and coord. systems \(July 1, 2021\)](#)

**Current Configurations** [\[edit\]](#)

Explanation of configuration labels can be found [here](#). The names associated with the exact labels are simply common short names to describe the configuration combination.

- [Baseline](#) (B-0.0, P-0.0, N-0.0)
- [Baseline+](#) (B-1.0, P-0.0, N-0.0)

**Subsystem Spec Sheets (DWG)** [\[edit\]](#)

- TBD

Here important information from the project will be posted. Geometry constrains, coordinate system, support, field etc. Elke will populate this soon

# ATHENA Wiki / Integration Page / Configurations

## Information from the Project [\[edit\]](#)

- [IR at IP6 Layout \(July 1, 2021\) \(pdf\)](#)

## Current Configurations [\[edit\]](#)

Explanation of configuration labels can be found [here](#). The names associated with the exact labels are simply common short names to describe the configuration combination.

- [Baseline](#) (B-0.0, P-0.0, N-0.0)
- [Baseline+](#) (B-1.0, P-0.0, N-0.0)

## Subsystem Spec Sheets (DWG) [\[edit\]](#)

## Validation Results (PWG) [\[edit\]](#)

- TBD

own logo image

Main page  
Recent changes  
Random page  
Help about MediaWiki

Tools

What links here  
Related changes  
Upload file  
Special page  
Printable version  
Page information  
Cite this page

## Baseline Configuration

**Contents** [\[hide\]](#)

- 1 [Field](#)
- 2 [Barrel B-0.0](#)
- 3 [Forward P-0.0](#)
- 4 [Backward N-0.0](#)

### Field [\[edit\]](#)

- Solenoidal

### Barrel B-0.0 [\[edit\]](#)

- All-Silicon Tracker (no MPGD)
- HP-DIRC
- EMCAL
- HCAL (Fe/Sc)

### Forward P-0.0 [\[edit\]](#)

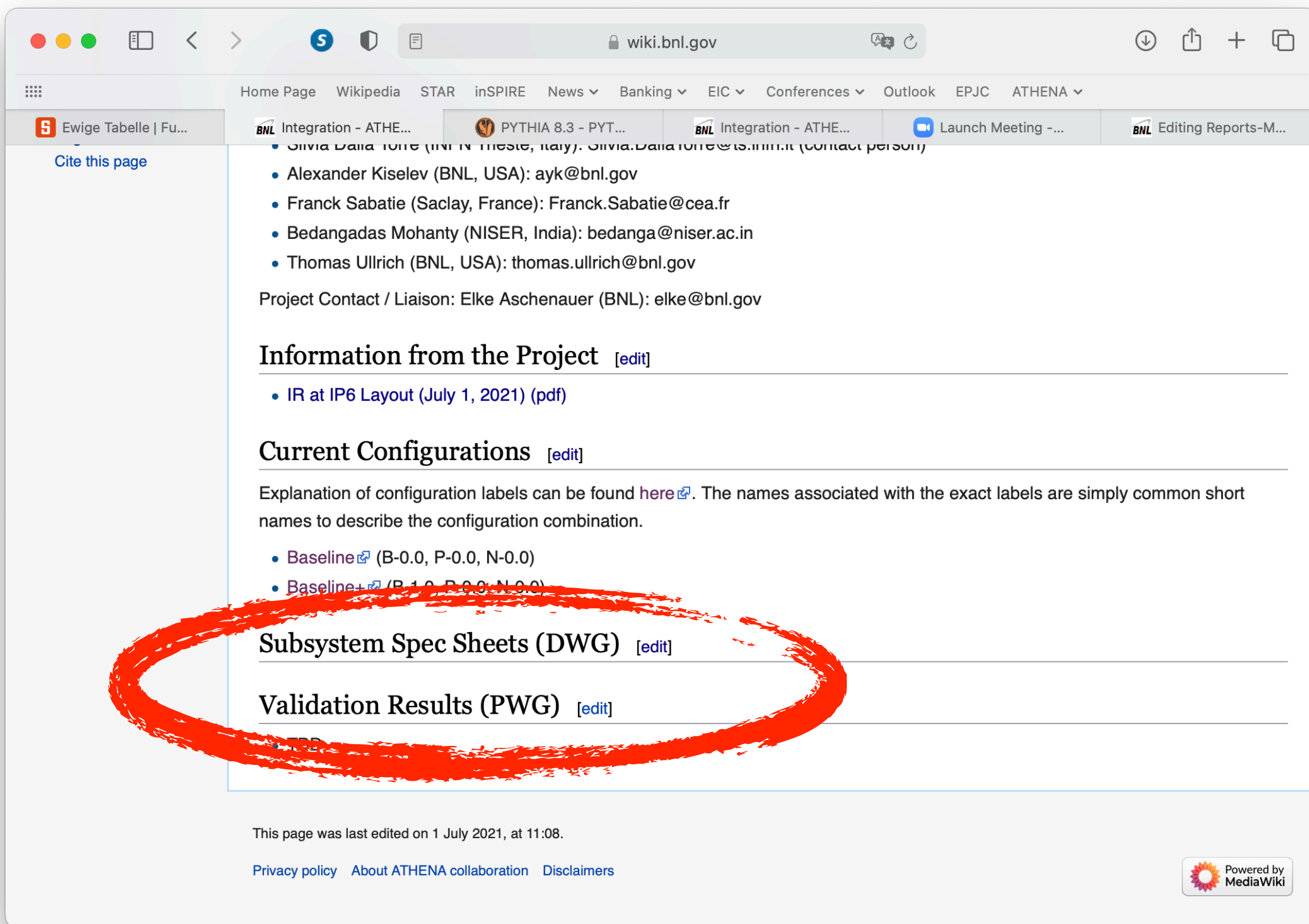
- Si-Disks
- GEM/MMG Layer
- dRICH
- EMCAL (W powder/ScFi)
- HCAL (Fe/Sc)

It would be great if the subsystem bullets could become links to the actual spec sheets

# DISCUSSION TOPICS



# ATHENA Wiki / Integration Page / Spec Sheets



Leave it up to DWG but it should be consistent.

Again, would be great if one could link the page in the configuration definition pages

- Subsystem spec sheets go here
  - ▶ Needed by software group
  - ▶ Project / engineers
  - ▶ DAQ (channels)
  - ▶ Integration & Costing Committee
- How do we want to do that?
  - ▶ one per subsystem one per DWG?
  - ▶ But systems vary by configuration, e.g. Si Vertex tracker is different if All-Si or Hybrid so it depends on B-N.M.
  - ▶ One page that evolves and describes specs for all configurations?
  - ▶ One page per subsystem per configuration?

# Validation - Brain Storming

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- Need clear charge to WG for validation
  - ▶ What do we need to know at a minimum
    - ⦿  $p$  and  $p_T$  resolution in  $\eta$ ,  $\varphi$
    - ⦿ PID resolution
    - ⦿ Energy Resolution (ECAL, HCAL)
  - ▶ Impact of those on physics will be provided by PWG but who provides the basic one above (DWG, PWG?)
- Need to define this soon
- Do we need a Validation Coordinator?