

Updates from PACs

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Physics Analysis Coordination Meeting – Augth, 2025

News by E.B.: a reworking of the structure for the ePIC pre-TDR

The new structure proposed for the Detector preTDR

- **Executive Summary**
- **Introduction**
 - About the EIC project and the accelerator complex (high level approach)
- **Requirements**
 - Requirements resulting as an evolution of the YR ones, also cross-checked with those in the project requirement document (high level page)
- **“chapter 8”**
 - Presenting the detector subsystems matching the requirements (mainly individual performance)
- **“chapter 2”**
 - Presenting the holistic detector performance by the performance for key physics measurements
- **Detector-Accelerator interfaces (INTEGRATION INTO THE FACILITY)**

pre-TDR: the Science Chapter

Comments we have received by the E.B. during our discussion:

- The previous two Sections 2.1 and 2.2 will go to the introduction (no longer on our shoulders).
 - Everything else will follow the technical chapter.
 - This is in order to introduce the detector first, then present the holistic performance of ePIC by the performance of key physics measurements.
 - Link to detector performance still not fully there!
 - How are the different kinematic reco methods related to the detectors?
 - How key observables (e.g. E-pz) depend on performance?
 - The Science plots not always lead to a crisp message on detector performance
 - E.g.: neutral current xsec.s showcase the importance of luminosity, which is related to machine performance.
 - We are divided by science (origin of mass, spin etc.) but we should be rather divided by processes (Inclusive, SIDIS, etc.), which better relate to what the detector is measuring.

We can then provide a table linking the NAS pillars to processes and thus to performance.
- **First action item for PACs:** Rearrange a bit the table of contents to get a template that better fits the narrative and scope of our chapter.
- **We will dedicate our next PAC meeting (SEP 02nd) to this topic**



ePIC and EIC Physics Readiness Workshop

Sep 17 – 18, 2025
Europe/London timezone

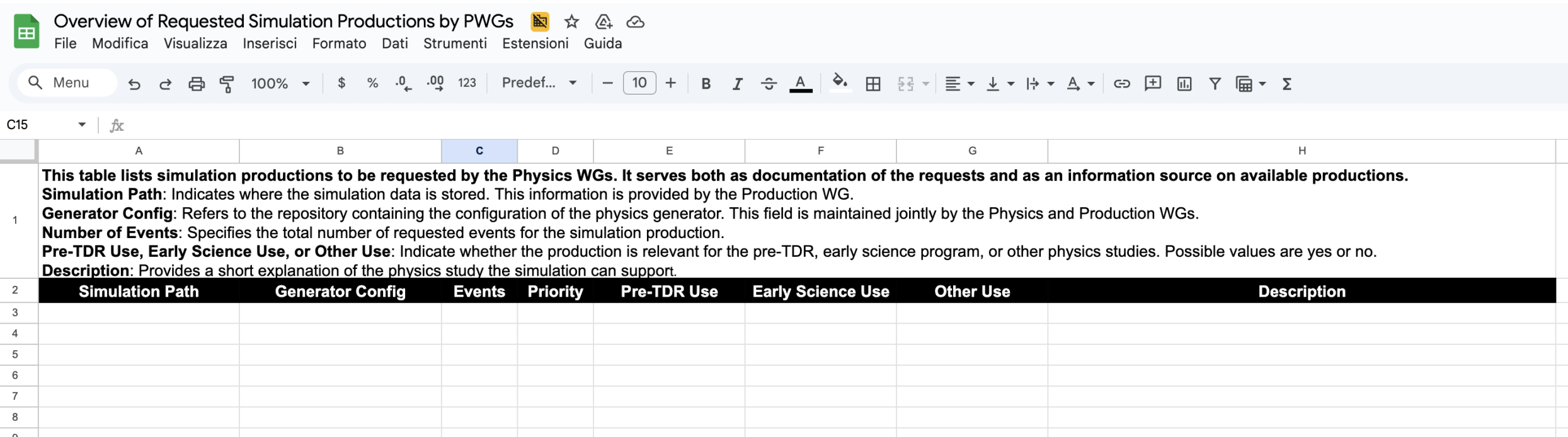
Enter your search term



- Indico: <https://indico.global/event/15249/overview>
- Please register even if attending online (select proper option)
- Anything you want to discuss or add to the time-table? Let us know!

Overview of simulation production requests

 https://docs.google.com/spreadsheets/d/1BJeq3AYwefNC9m3palH6T0SHMxmRmHpOzLTsa_6SZIU/edit?usp=sharing



Overview of Requested Simulation Productions by PWGs

File Modifica Visualizza Inserisci Formato Dati Strumenti Estensioni Guida

Menu 100% 123 Predef... 10 B I A

C15

	A	B	C	D	E	F	G	H
1	<p>This table lists simulation productions to be requested by the Physics WGs. It serves both as documentation of the requests and as an information source on available productions.</p> <p>Simulation Path: Indicates where the simulation data is stored. This information is provided by the Production WG.</p> <p>Generator Config: Refers to the repository containing the configuration of the physics generator. This field is maintained jointly by the Physics and Production WGs.</p> <p>Number of Events: Specifies the total number of requested events for the simulation production.</p> <p>Pre-TDR Use, Early Science Use, or Other Use: Indicate whether the production is relevant for the pre-TDR, early science program, or other physics studies. Possible values are yes or no.</p> <p>Description: Provides a short explanation of the physics study the simulation can support.</p>							
2	Simulation Path	Generator Config	Events	Priority	Pre-TDR Use	Early Science Use	Other Use	Description
3								
4								
5								
6								
7								
8								
9								

- **An essential tool for helping S&C with organizing production**
 - It was created and advertised a few months ago, as a follow up from discussions at the CFNS early science workshop
- **This list needs to be filled by conveners of each PWG**
 - either directly or by PACs with the infos