Updates from PACs

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Physics Analysis Coordination Meeting – Aug 5th, 2025

❑ ePIC Collab. Meeting at JLAB

- Three well attended PA-related parallels/workfests
  - **Physics obs. and detector performance:** initiated xtalks with DSCs (tracking, DIRC,…)
  - **Exclusive+Diff+Tag:** good progress towards a group's review paper on early science
    - See S. Kay's report today
  - **Jets and H.F.:** good progress of group's activities

❑ PAC Meeting organization

- Is current slot OK for new conveners?
- Need to find an additional slot suitable for east coast → discussion today
- This meeting will serve as **"physics forum"** for result release and paper presentations

New PWG Conveners

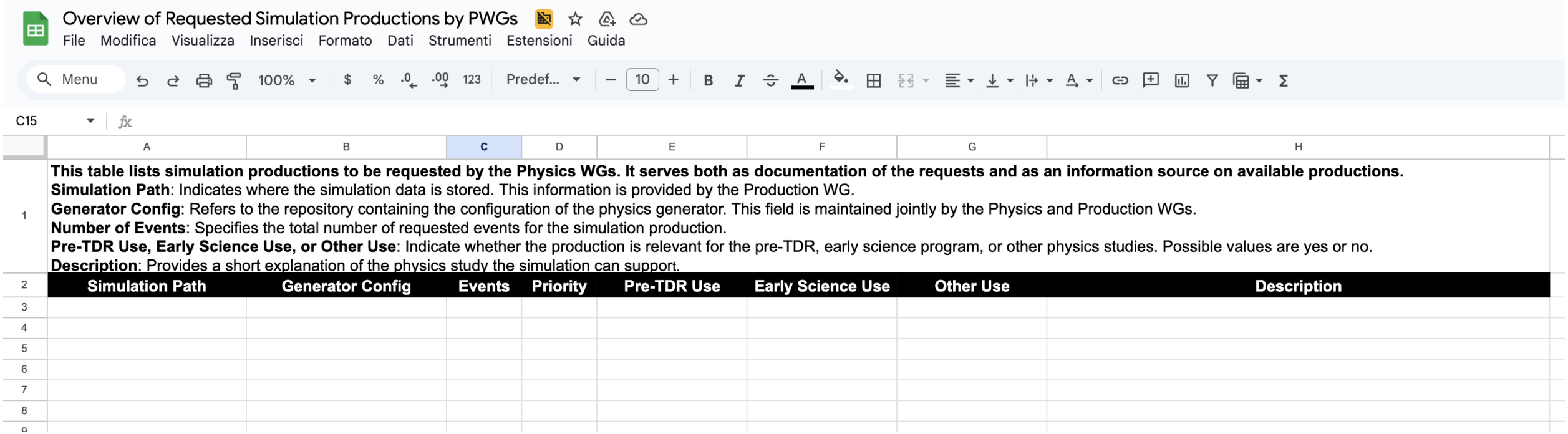




- We petitioned the C.C. for the new slate PWG conveners: https://indico.bnl.gov/event/28733/
  - Win Lin (INCLUSIVE), Anselm Vossen (SIDIS), Shyam Kumar (JETS+HF), Stephen Kay (Ex+Diff+Tag), Zuhal Seyma Demiroglu (BSM+EW)
- Waiting for the result of voting and the official, we should assume success:
  - New nominees should already start as acting conveners
  - New conveners have already control of mailing lists, wiki pages… of their PWG
  - We have **a month overlap** between old and new conveners

Overview of simulation production requests

- https://docs.google.com/spreadsheets/d/1BJeq3AYwefNC9m3palH6T0SHMxmRmHpOzLTSa_6SZIU/edit?usp=sharing



	A	B	C	D	E	F	G	H
1	**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.** **Simulation Path**: Indicates where the simulation data is stored. This information is provided by the Production WG. **Generator Config**: Refers to the repository containing the configuration of the physics generator. This field is maintained jointly by the Physics and Production WGs. **Number of Events**: Specifies the total number of requested events for the simulation production. **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. **Description**: Provides a short explanation of the physics study the simulation can support.							
2	**Simulation Path**	**Generator Config**	**Events**	**Priority**	**Pre-TDR Use**	**Early Science Use**	**Other Use**	**Description**
3								
4								
5								
6								
7								
8								

- **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 directedly or by PACs with the infos

Official templates for plots and Notes

The Results Release Committee has developed the following documents/templates that will help present ePIC results to the community in a professional and coherent fashion

- Results release procedure: https://www.epic-eic.org/documents/results_release.html
- Ana/Tech Note submission and templates: https://www.epic-eic.org/documents/note_process.html
- Style and plotting macro: https://github.com/eic/ResultsCommittee_templates/tree/main/plot_macro
- Template Notes: https://github.com/eic/ResultsCommittee_templates/tree/main/analysis_note_template

Please follow these guidelines for:

- pre-TDR and early science plots
- Upcoming Analysis Notes Plots
- Performance plots and other relevant results within your PWG

pre-TDR: the way forward

- ❑ **pre-TDR v2.1 now on zenodo:** https://zenodo.org/records/16040092
- **Separated TDRs for ePIC and EIC:** Ch. 2/8 become "physics" and "technical" chapters
- **Editorial Board** formed and chaired by S. Dalla Torre and J. Haggerty
  - **preTDR content**: Ed. Board meets text authors of the various sections/subsections
    - Remember: TDR is everyone's priority

	chapter	section	subsection	subsection	title	contact persons
	2				**Physics Goals and Requirements**	
		2.1			EIC Context and History	Salvatore Fazio, Rachel Montgomery, Rosi Reed
ePIC		2.2			The Science Goals of the EIC and the Machine Parameters	Elke Aschenauer, Rolf Ent
responsibility		2.3			Reconstruction Tools and Special Probes	Salvatore Fazio, Rachel Montgomery, Rosi Reed
			2.3.1		Reconstruction of DIS kinematics	Tyler Kutz, Stephen Maple, Win Lin
Project			2.3.2		Semi-inclusive kinematics and hadron identification	Stefan Diehl, Ralf Seidl, Anselm Vossen
responsibility			2.3.3		Reconstruction of kinematics for exclusive and diffractive proces	Raphael Duple, Zhoudunming Tu, Stephen Kay
			2.3.4		Electron identification	Tyler Kutz, Stephen Maple, Win Lin
			2.3.5		Muon identification	Ciprian Gal, Juliette Mammei, Zuhal Seyma Demiroglu
			2.3.6		Jets: a versatile probe	Olga Eldokimov, Rongrong Ma, Shyam Kumar
		2.4			The EIC Science - ePIC performance for key observables	Salvatore Fazio, Rachel Montgomery, Rosi Reed
			2.4.1		Origin of Nucleon Mass	Salvatore Fazio, Rachel Montgomery, Rosi Reed
				2.4.1.1	Inclusive neutral current cross sections	Tyler Kutz, Stephen Maple, Win Lin
Joint			2.4.2		Origin of Nucleon Spin	Stefan Diehl, Ralf Seidl, Anselm Vossen
responsibility			2.4.3		Multi-Dimensional Imaging of the Nucleon	Salvatore Fazio, Rachel Montgomery, Rosi Reed
				2.4.3.1	Imaging in Momentum Space	Stefan Diehl, Ralf Seidl, Anselm Vossen
				2.4.3.2	Imaging in Transverse Position Space	Raphael Duple, Zhoudunming Tu, Stephen Kay
				2.4.3.3	Upsilon production	Raphael Duple, Zhoudunming Tu, Stephen Kay
			2.4.4		Properties of Nuclear Matter	Salvatore Fazio, Rachel Montgomery, Rosi Reed
				2.4.4.1	Gluon Saturation	Raphael Duple, Zhoudunming Tu, Stephen Kay
				2.4.4.2	Nuclear Modifications of Parton Distribution Functions	Olga Eldokimov, Rongrong Ma, Shyam Kumar, Stefan Diehl, Ralf Seidl, Anselm Vossen
				2.4.4.3	Passage of Color Charge Through Cold QCD Matter	Olga Eldokimov, Rongrong Ma, Shyam Kumar
			2.4.5		Additional physics opportunities	Salvatore Fazio, Rachel Montgomery, Rosi Reed, Ciprian Gal, Juliette Mammei, Zuhal Seyma Demi