

COMMUNICATIONS

TC-Office

TIC meeting, June 22nd 2026

BACKGROUND CHALLENGES, DATA RATE SUMMARY TABLE

E-mail from Jeff Landgraf

Hi Silvia,

I have the start of the data rate summary table posted on sharepoint.

[ePICdataVolumeSummary.xlsx](#)

LINK to the table: <https://brookhavenlab.sharepoint.com/:x:/s/EICPublicSharingDocs/IQB-kLhwyLvuSpfzxCNyxGDOAZRAjAheMUOrAjAzU52MJ1s?e=Hhc0ig>

DSLs and DSTCs, please polulate the table !

For instructions: Jeff's talk at TIC On May 18th

Link:

[https://indico.bnl.gov/event/32710/contributions/124687/attachments/70213/120369/260518 TIC.pptx](https://indico.bnl.gov/event/32710/contributions/124687/attachments/70213/120369/260518_TIC.pptx)

BACKGROUND CHALLENGES, STATUS

A summary table available and updated in the INDICO page of today TIC meeting

DSLs and DSTCs, **please check and send me any comment/correction by Monday June 29th**
after June 29th the table will be used as reference to background studies done/to be done

Subsystem	Performance studies	Hits/Rates/Bandwidth	Doses/Fluences	Planning	Missing	Notes
						June 2026, after the second report at TIC
eI/r-o/DAQ		table template ready (shared sheet)				including background and noise is requested
SVT	performed: efficiency, purity, spatial and angular resolutions and primary vertexing	very advanced study		use the most recent simulation files; hit rate fluctuations; sensor response function; insert noise in simulation; track χ^2 studies		10u Au coating used and needed! noise was included for the second report; noise rates similar or larger than SR in several layers/disks
MPGD		studies performed w/o clustering (multiply by 3 or 4 the rates); fully compatible with SALSA		repeat studies introducing threshold (100 e?)		
pfRICH		detailed hit occupancy (maximum, average) performed			full ITR2 implementation in EICrecon for performance studies; hit maps used to estimate HRPPD QE ageing challenge	for performance the completion of the reconstruction software is needed
hpDIRC		report postponed				for performance the completion of the reconstruction software is needed
dRICH		extremely detailed analysis: DCR remains dominant; ALCOR shutter and external "trigger" needed for compatibility of the available bandwidth			full ITR2 implementation in EICrecon for performance studies	for performance the completion of the reconstruction software is needed
TOF		dominant SR rate for low En. Deposition in both BTOF and FTOF; controlled with 80keV cut		repeat studies with ePIC simulation files; PID performance; angular resolution		SRO simulation files used so far
EEEMCAL	modest background impact within available statistics	rates dominated by background, but still in r-o-r/DAQ capabilities	n fluence evaluated: Noise from dark current in SiPMs evaluated to be below expected threshold after 150 fb ⁻¹	refine the performance studies with different simulated files to enhance the background role	refine the performance studies with different simulated files to enhance the background role (e/pi separation)	simulated files with enhanced background

Radiation/Fluence have been

TC-Office activity/priorities in 2026

- Completion of the background studies
- Update/upgrade of preTDR including the results of the background studies
- Coordination of the NIM-a Papers, DSC sector
- **Status / perspectives/ encouragements for “full chain studies”:**
 - **Sensor & FEE ASIC + FEB & RDO & FBDC & DAQ**
 - Of course, progressing step by step starting coupling sensor and FEE
 - This first step is also key to confirm the sensor performance

TIC TODAY

TIC meeting - LFHCAL test beams 2026; ePIC Software and Simulations Paper

Monday 22 Jun 2026, 09:00 → 11:35 US/Eastern

Silvia Dalla Torre (INFN, Trieste)

Description Technical and Integration Council Meeting

Join Zoom Meeting

<https://cern.zoom.us/j/9374314394?pwd=YTFjZjFGcXptMG13cGFQYWwFQOWdrZz09>

Recording:

09:00 → 09:05 **Communications**

5m

Speakers: Matt Posik (Temple University), Oskar Hartbrich (Oak Ridge National Lab), Prakhar Garg (Yale University), Silvia Dalla Torre (INFN, Trieste)

09:10 → 09:25 **DSC communications**

15m

Speakers: Alexander Jentsch (Brookhaven National Laboratory), Alexander Kiselev (BNL), Brian Page (Brookhaven National Laboratory), Carlos Munoz Camacho (JCLab, CNRS/IN2P3), Ernst Sichtermann (Lawrence Berkeley National Laboratory), Friederike Bock (ORNL), Grzegorz Kalicy (CUA), Hwidong Yoo (Yonsei University), Jaroslav Adam, Kondo Gnanvo (Jefferson Lab), Krzysztof Piotrkowski (AGH UST), Laura Gonella (University of Birmingham), Dr Leszek Kosarzewski (Ohio State University), Marco Contalbrigo (INFN Ferrara), Maria Zurek (Argonne National Laboratory), Megan Connors (Georgia State University), Miguel Arratia (University of California, Riverside), Nicholas Zachariou (University of York), Oleg Tsai, Satoshi Yano (Hiroshima University), Dr Simon Gardner (University of Glasgow), Stefan Bathe (Baruch College, CUNY, & RBRC), Sylvester Joosten (Argonne National Laboratory), Tanja Horn (Cath), Zhangbu Xu (Kent State University)

09:30 → 09:50 **LFHCAL beam test**

20m

Speakers: Friederike Bock (ORNL), Oskar Hartbrich (Oak Ridge National Lab)

09:55 → 10:15 **ePIC Software and Simulations Paper**

20m

Speaker: Dmitrii Kalinkin (Brookhaven National Laboratory)