

# FY23 Brief Close-Out



D. Mack  
Chair, EIC-related Generic Detector R&D Committee

TJNAF

10/31/23



Indico link to the meeting: <https://indico.jlab.org/event/751/>

Link to proposals: [https://www.jlab.org/research/eic rd prgm/receivedproposals](https://www.jlab.org/research/eic_rd_prgm/receivedproposals)

20 proposals were received in 7 subject areas

(11 new proposals, 7 continuations from last year, 2 resubmissions from last year)

16 committee members

2-4 readers per proposal

All proposals were invited to make presentations

\$2.6M in total requests

~\$1.3M in disburseable funds

Hence disburseable funds are a factor of 2 over-subscribed. (Much better than last year.)

# Committee Members

Name (1-16)	Institution
Nicolo Cartiglia	INFN
Gabriel Charles	IJCLab/IN2P3/CNRS, University Paris-Saclay
Oleg Eyser	BNL
Jin Huang	BNL
Samo Korpar	U. of Maribor and Institute Jozef Stefan
Ron Lipton	FNAL (retired)
Clara Matteuzzi	INFN (retired)
Ben Nachman	LBNL
Daniel Pitzl	DESY
Fabrice Retiere	TRIUMF
Petra Riedler	CERN
Stefan Ritt	PSI
Bjoern Seitz	U. Glasgow
Justin Stevens	College of W&M
Maxim Titov	CEA
Glenn Young	BNL (retired again)

In the proposal guidelines, we asked for 100%, 80%, and 60% funding scenarios.

In some cases, the awards are less than this because we only want to support part of the work, or because we only want to provide support for simulations so you can make a stronger case next year, etc.

We appreciate that in a few cases, after taking a short time to consider our proposal, you might not accept the award. In that case, the funds will be re-distributed, and a similar proposal in the future would not be encouraged.

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The awards may still change at the  $O(10)\%$  level. (Eg, it makes no sense to fund 93% of a student plus overhead, and it's hard to do careful checking in near-real time.). So on the following pages, you will merely see:

- **Funded** (which means in the usual 60% to 100% range),
- **Funded < 60%** (which means ballpark 50%)
- **Funded << 60%** (which means support for simulations only, then come back and make your case next year)
- **Not funded**

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Spoiler alert: the two resubmissions from last year got funded at some level

# Calorimetry

EICGENR&D Proposal Number	Title	PI(s)	PI Institution(s)	Budget Request \$US (Year 1)	Status	Funding Decision	Comment
	<b>Calorimetry:</b>						
2	Towards a Few-Degree Calorimeter: bridging the $Q^2$ gap to support the quest for gluon saturation	M. Arratia	UC Riverside	135,000	New	Funded < 60%	
3	Generic glass scintillators for EIC Calorimeters (ScintCalEIC) R&D	T. Horn	CUA	95,333	Continuation	Funded < 60%	
4	Feasibility of Organic Glass Scintillators for EIC ZDC	G. Carini, E. Aschenauer, A. Bolotnik	BNL Instr. Div., BNL Physics Div.	300,000	New	Funded << 60%	Funds are provided only to support a simulation and come back next year.
18	Continuation of EIC KLM R&D Proposal	A. Vossen, W. W. Jacobs	Duke U., Indiana U. CEEM	133,000	Continuation	Funded	
			requests for this topic =	\$ 663,333			
			Weight =	2			
			weighted preliminary allocation this topic =	\$ 226,087			
			committee proposed =	\$ 272,033			

# PID (non-TOF)

EICGENR&D Proposal Number	Title	PI(s)	PI Institution(s)	Budget Request \$US (Year 1)	Status	Funding Decision	Comment
	<b>PID (non-TOF):</b>						
8	Pressurized RICH	M. Contalbrigo	INFN Ferrara and U. Ferrara	75,000	New	Funded	
9	Z-Tagging Mini DIRC	C.E. Hyde, Wenliang Li	ODU, SBU and CFNS	117,000	Resubmission	Funded < 60%	
13	Performance of GridPIX Detector in Magnetic Field with low mass and high efficiency CO2 cooling	T. K. Hemmick, P. Garg	SBU and CFNS, Yale U.	80,193	Continuation	Funded < 60%	
20	Development of a Novel Readout Concept for an EIC DIRC	G. Kalicy, J. Schwiening	CUA, GSI	125,000	Continuation	Funded	
			requests for this topic =	\$ 397,193			
			Weight =	2			
			weighted preliminary allocation this topic =	\$ 226,087			
			committee proposed =	\$ 273,597			



# Gaseous Precision Timing and/or Tracking

EICGENR&D Proposal Number	Title	PI(s)	PI Institution(s)	Budget Request \$US (Year 1)	Status	Funding Decision	Comment
	<b>Gaseous Precision Timing and/or Tracking:</b>						
14	Development of High Precision and Eco-friendly MRPC TOF Detector for EIC	Zhenyu Ye, Zhihong Ye	UI at Chicago, Tsinghua U.	120,000	Resubmission	Funded	
16	Development of Double-sided Thin-Gap GEM- $\mu$ RWELL for Tracking at the EIC	K. Gnanvo	Jlab	238,502	Continuation	Funded < 60%	
			requests for this topic =	\$ 358,502			
			Weight =	1			
			weighted preliminary allocation this topic =	\$ 113,043			
			committee proposed =	\$ 191,251			

# Front End Electronics

EICGENR&D Proposal Number	Title	PI(s)	PI Institution(s)	Budget Request \$US (Year 1)	Status	Funding Decision	Comment
	<b>Front End Electronics:</b>						
11	Design, Fabrication and testing of a multi-channel System on a chip for Low-Power High-Density High Timing Precision Readout ASIC for AC-LGADs (HPSoCv3)	L. Macchiarulo, B. Schumm	Nalu Scientific, UC Santa Cruz	221,500	Continuation	Funded	
			requests for this topic =	\$ 221,500			
			Weight =	1.5			
			weighted preliminary allocation this topic =	\$ 169,565			
			committee proposed =	\$ 177,200			

# Silicon Detectors

EICGENR&D Proposal Number	Title	PI(s)	PI Institution(s)	Budget Request \$US (Year 1)	Status	Funding Decision	Comment
	<b>Silicon Detectors</b>						
1	A Fast Timing MAPS Detector for the EIC	X. Li	LANL	211,586	New	Funded < 60%	
5	Slim Edge for LGADs	G. Giacomini	BNL Instr. Div.	130,000	New	Funded	
6	Photonics-Based Readout and Power Delivery by Light for Large-Area Monolithic Active Pixel Sensors	S. Mandal, S. Rescia	BNL Instr. Div.	150,000	New	Funded	
10	Large-Area Monolithic Active Pixel Sensors Combining High Spatial and Temporal Resolution	D. Gorni	BNL Instr. Div.	120,000	New	Not Funded	
12	R&D of 4D Detectors with EICROC and AC-LGAD at EIC consolidating a US-Japan Consortium	P. Tribedy, K. Shigaki	BNL Instr. Div., Hiroshima U.	152,585	New	Not Funded	
15	Fabrication and characterisation of the Trench Isolated Low Gain Avalanche Detectors for 4D tracking	S. Gardner	U. Glasgow	157,000	New	Not Funded	
			requests for this topic =	\$ 921,171			
			Weight =	3			
			weighted preliminary allocation this topic =	\$ 339,130			
			committee proposed =	\$ 334,634			

# Other New Detectors

EICGENR&D Proposal Number	Title	PI(s)	PI Institution(s)	Budget Request \$US (Year 1)	Status	Funding Decision	Comment
	<b>Other New Detectors:</b>						
17	Scintillator Fiber Trackers for the ZDC and off-momentum detectors	C. Ayerbe Gayoso	College of William and Mary	39,500	New	Funded < 60%	Funds are provided only to support a simulation and come back next year.
19	Superconducting Nanowire Detectors for the EIC	Sangbaek Lee, W. Armstrong	ANL	60,000	Continuation	Funded	
			requests for this topic =	\$ 99,500			
			Weight =	1			
			weighted preliminary allocation this topic =	\$ 113,043			
			committee proposed =	\$ 83,305			

# Other R&D to Support or Expand the Physics Program

EICGENR&D Proposal Number	Title	PI(s)	PI Institution(s)	Budget Request \$US (Year 1)	Status	Funding Decision	Comment
	<b>Other R&amp;D to Support or Expand the Physics Program:</b>						
7	R&D for a new concept EIC nucleon polarimeter based on chemical hyperpolarisation	D. P. Watts	U. of York	159,000	New	Not Funded	
			requests for this topic =	\$ 159,000			
			Weight =	1			
			weighted preliminary allocation this topic =	\$ 113,043			
			committee proposed =	\$ -			

# Acknowledgements

Sadie Cherry, our Administrative Assistant, is the rock who gets us through these meetings.

Tanya Stewart tells me how much \$\$ we can spend.

Stephanie Tysor sets these yearly meetings in motion.