

EIC targeted R&D program has been initiated

eRD102 dRICH

This funding is in support of

- (i) an assessment of the basic prototype performance based on the 2021 test beams and
- (ii) the realization of a suitable photon detection plane for the dRICH prototype as cited in your proposal.

eRD110 Photosensors

This funding is for the SiPM R&D efforts at INFN.

We ask you kindly provide a one-page Statement-of-Work (SOW) that is needed to establish the contract. Note that the contracts with eRD102 will be handled by the JLab procurement office.

Please note that this effort and its milestones will be entered and progress tracked in the EIC project portfolio management system (P6).

New campaign to approach the design performance

1 week at SPS with 20-60 GeV/c hadron beams. + 120 GeV/c pencil proton beam

		Mar			Apr			Mai				Jun				Jul				Aug				Sep				Oct				Nov				Dec																			
Week		11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50														
Machine																								TS1 RP																										TS2 Coldex RP					
North Area	T2 - H2				SPS & TT20 Setup 7		NA Setup 14		NA61 SHINE 16		CMS HGCAL 7		NA61 SHINE 7		EP FTS 7		Calice (SiW ECAL) 14		NA61 SHINE 35				STORMKLEVER 7		CMS PIXELS 7		CMS OT 7		CMS HF 7		FASER pre shower 7		Placeholder 14		HERD 7		NA65 7		CMS HGCAL 7		LHCf 7		LHCb ECAL 14		ALICE FOCAL 7		SNO 7		NA61 setup 150 AGeV/c 7		NA61 150 AGeV/c 14		NA61 13 AGeV/c 7		
	H6 parallel						ATLAS BCM 10						RD42 7				EP hybrid 7		ATLAS ITK PIXEL 14								CMS OT 7		EP hybrid 7		ATLAS BCM 7				RD50 7		EP hybrid 7		CMS PIXELS 7																
	H6 ACONITE parallel						ATLAS ITK PIXEL 9		ATLAS HGTD 14		ATLAS ITK PIXEL 14		ATLAS ITK PIXEL 7		ATLAS ITK PIXEL 7		ATLAS ITK STRIP 7		ATLAS HGTD 14		ATLAS ITK PIXEL 14		ATLAS ITK PIXEL 14		ATLAS ITK PIXEL 14		ATLAS HGTD 14		CMS PIXELS 7		ATLAS ITK PIXEL 14		ATLAS HGTD 14		ATLAS ITK PIXEL 7		ATLAS HGTD 14		ATLAS ITK PIXEL 7																
	T4 - H8				SPS & TT20 Setup 7		NA Setup 14		LHCf 7		TOTEM 14		STI 7		CMS MTD 14		ATLAS Tilecal 14		IDEA CC 7		LHCb (TOTEM) 7		TOTEM / Q.Fb 7		Modpix / Q.Fb 7		ATLAS FCAL PULSE 7		IDEA DRC 7		TOTEM 7		ALICE PHOS 7		EIC dRICH 7		UA9 14		LHCb / SEL-DOM 14		Placeholder 14		ATLAS Tilecal 12		NUCLEON 7		NA60+ 7		NA61+ 7						












2++ weeks at PS with 0.5-12 GeV/c hadron beams + 0.5-5 GeV/c electron beams

		Mar			Apr			Mai				Jun				Jul				Aug				Sep				Oct				Nov				Dec																			
Week		11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50														
Machine																								TS1 RP																										TS2 RP					
East Area	T8 - Irrad	EA Setup 14		EA-Irrad 245																												CHIMERA 14																							
	T9	EA Setup 14		LDMX setup 16		LDMX 14		NP07 14		PAN 7		ALICE FOCAL 10		SHERPA 14		TOTEM 7		MUonE CAL 7		BLAS 7		STORM 14		Gamma MeV 14		HERD 17		BL4S 14		EnuBet 14		ALICE PHOS 14		LHCb TORCH 28																					
	T10	EA Setup 14		ATLAS HGTD 9		ATLAS ITK PIXEL 14		ALICE ITS3 14		ALICE TOF 12		ProTOV 14		ALICE ITS3 14		ALICE TIMING 14								ALICE ITS3 7				ALICE ITS3 7		EIC dRICH 14		ALICE RICH 14		ALICE TIMING 14		ALICE TOF 12																			

RICH Pattern Recognition Challenges



📅 Wednesday 6 Apr 2022, 15:00 → 18:00 Europe/Rome

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|--|---------|--|---|
| 15:00 | → 15:05 | Welcome and introduction | 🕒 5m  |
| Speaker: Marco Contalbrigo (Istituto Nazionale di Fisica Nucleare) | | | |
| 15:05 | → 15:25 | EIC and the new PID challenges | 🕒 20m  |
| Speaker: Alexander Kiselev (Brookhaven National Laboratory) | | | |
| 15:25 | → 15:45 | RICH at COMPASS  | 🕒 20m  |
| Speaker: Silvia Dalla Torre (Istituto Nazionale di Fisica Nucleare) | | | |
| 15:45 | → 16:05 | RICH at HERMES | 🕒 20m  |
| Speaker: Evaristo Cisbani (ROMA1) | | | |
| 16:05 | → 16:25 | RICH at ALICE | 🕒 20m  |
| Speaker: Giacomo Volpe (Istituto Nazionale di Fisica Nucleare) | | | |
| 16:25 | → 16:45 | RICH at LHCb | 🕒 20m  |
| Speaker: Carmelo D'Ambrosio (CERN, PH Dept.) | | | |
| 16:45 | → 17:00 | RICH in Hall-A JLab | 🕒 15m  |
| Speaker: Guido Maria Urciuoli (Istituto Nazionale di Fisica Nucleare) | | | |
| 17:00 | → 17:15 | RICH at CLAS12 | 🕒 15m  |
| Speaker: Marco Contalbrigo (Istituto Nazionale di Fisica Nucleare) | | | |
| 17:15 | → 17:30 | dRICH at EIC | 🕒 15m  |
| Speaker: Evaristo Cisbani (ROMA1) | | | |
| 17:30 | → 18:00 | Open Discussion | 🕒 30m  |

Agenda

Many contributions to (d)RICH analysis:

Evaristo Cisbani, Alessio del Dotto, Cristiano Fanelli

proof-of-principle studies

Alexander Kiselev, Christopher Dilks, Chandradoy Chatterjee,

Implementation



Marco Contalbrigo, Luca Barion, Simone Vallarino

prototype

Still missing a complete chain from a detector model till the reconstructed PID information

Goals:

- initiate a coherent effort towards an effective and practical framework that could timely serve the EIC PID performance optimization.
- prepare for future refinements and alternatives

Initiatives:

Implementation of the dRICH simulation and software:

C. Chatterjee, A. Kiselev, C. Dilks

May 4 (12:00 – 14:00 EST)

Cherenkov PID at EIC

R. Preghenella, G. Kalicy, T. Hemmick, X. He

eic-projdet-CPID-1@lists.bnl.gov

LAPPD beam-test

A. Kiselev, P. Antonioli, M. Osipenko, S. Dalla Torre

First Detector

S. Dalla Torre, O. Hen, T. Horn, J. Lajoie, B. Sorrow

eic-ip6-public-1@lists.bnl.gov

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