

21 Indian Institutes part of ATHENA @ Electron Ion Collider from India

Experimental Groups

Experiment + Theory Groups

Theoretical Groups



Tata Institute of Fundamental Research



Approx. 30 Scientists

Indian Group Contact Person

Last Name: Mohanty

First Name: Bedangadas

Institution: National Institute of Science Education and Research

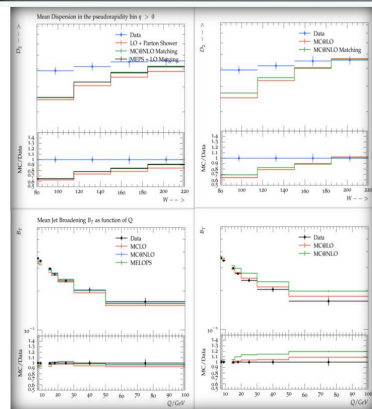
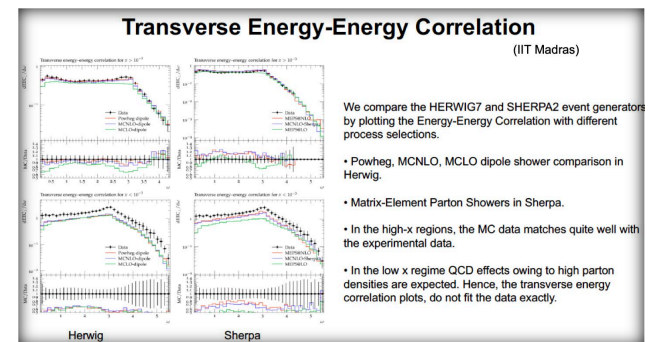
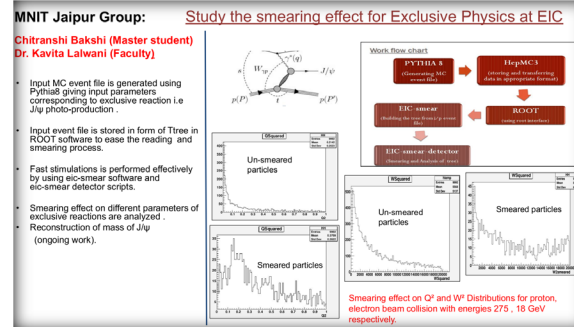
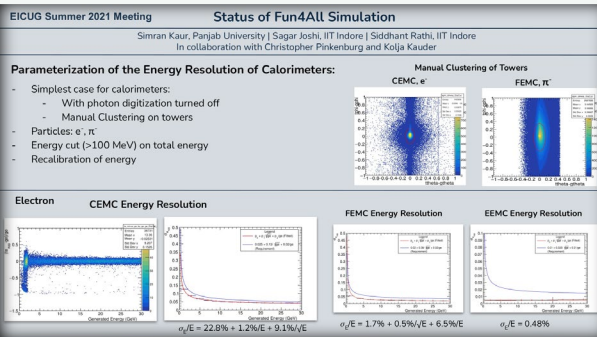
Email: bedanga@niser.ac.in

We have been part building the experimental collaboration - Charter Committee and Proposal Committee of ATHENA @ EIC

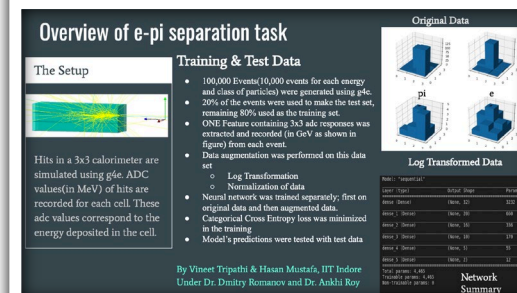
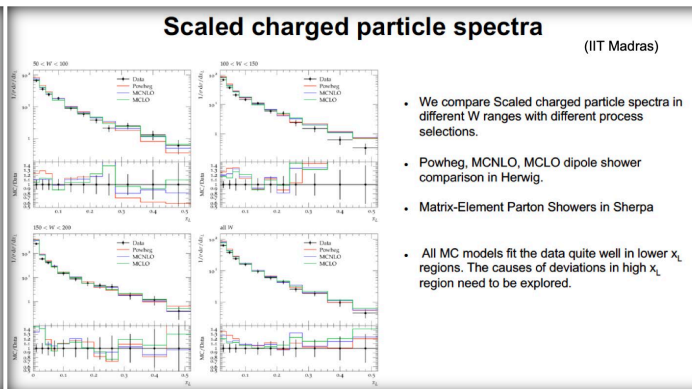
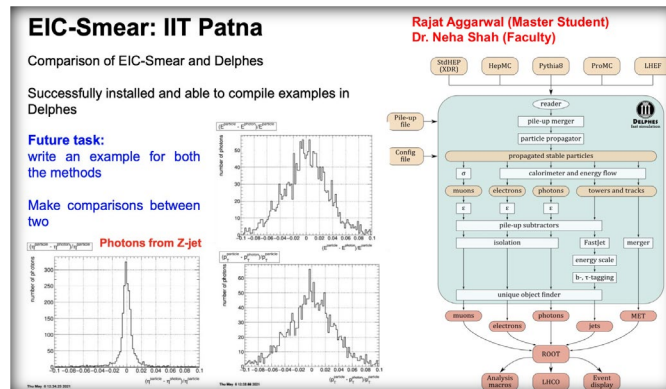
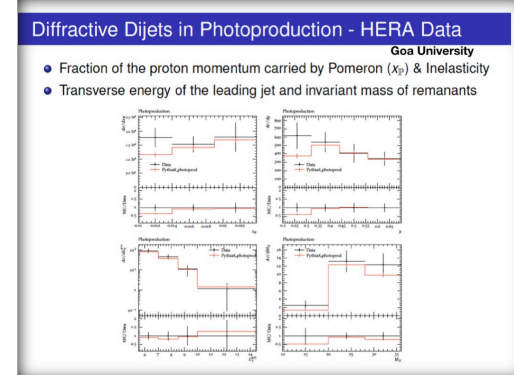
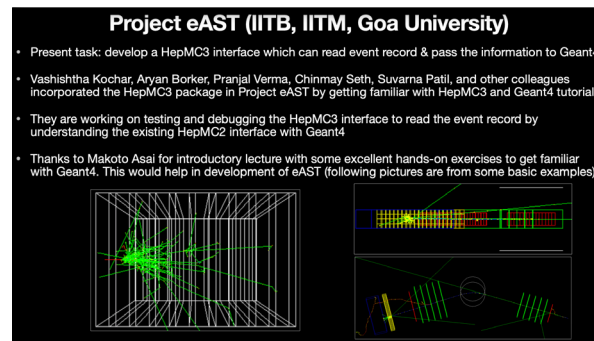
Interest and participation in Physics/Simulations/Software developments

Institute and contact person	Interest/Contribution
Central University of Karnataka - Deepak Samuel	Software development, simulations, DAQ
IIT Delhi - Tobias Toll	Physics Simulation – Exclusive PWG
IISER Tirupati – Chitrasen Jena	Physics Simulation, Jets, Heavy Flavor, EW & BSM Working Group
DAV College - Monika Bansal	Data-MC validation in the EIC Software Working Group
Akal University - Ramandeep Kumar	Data-MC validation in the EIC Software Working Group
Goa University - Prabhakar Palni	MC-data validation group, HepMC3, eAST, Inclusive Working Group
Panjab University - Lokesh Kumar	Simulations - energy resolution of calorimeters
IIT Madras - Prabhat R. Pujahari	MC data validation and comparison, eic-smear, eAST
IIT Indore - Ankhi Roy	Calorimeter related work with Fun4All group, Particle Identification using Machine Learning
IIT Bombay – Asmita Mukherjee/Sadhana Dash	Physics :MC Simulation, Jets, Heavy Flavor, EW & BSM Working Group
MNIT Jaipur - Kavita Lalwani	MC data comparison, EIC-smearing
RMRCCK - Amal Sarkar	Jets, Heavy Flavor, EW & BSM Working Group
IIT Patna - Neha Shah	Physics Simulations
IISER Berhampur – Md. Nasim	Physics simulations, Jets, Heavy Flavor, EW & BSM Working Group
TIFR Mumbai – Nilmani Mathur	Jets, Heavy Flavor, EW & BSM Working Group

Glimpses of some selected contributions



- **Mean Dispersion and jet broadening as function of final state energy for total current hemisphere.**
- **For dispersion the agreement is better at higher energy and multiplicity ranges.**



EIC User Highlights

https://www.jlab.org/people/Prabhakar_Palni_EIC_User

<https://www.bnl.gov/newsroom/news.php?a=218915>

Interest and participation in hardware developments

(a) Silicon Tracking and Vertex System (Jammu University and NISER) – Anju Bhasin

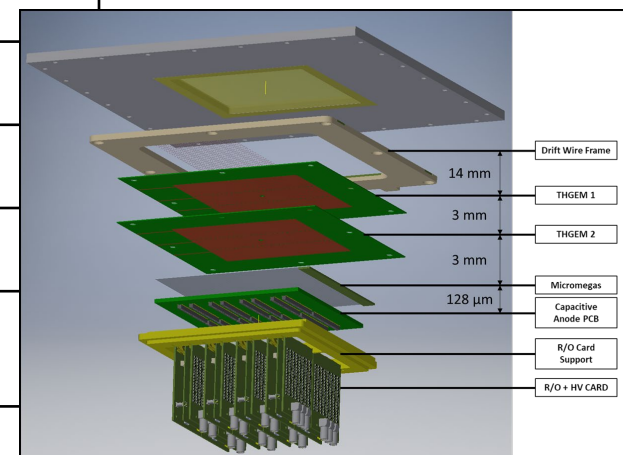
- (i) In kind labour contributions for detector R&D, testing, quality assurance, commissioning and operations.
- (ii) Detector slow control system related developments
- (iii) Provide access to other EIC groups to existing facilities in our laboratory for detector related work.

(b) Particle Identification Detector (BHU, NISER, and IOP) – Bhartendu Singh

- (i) In kind labour contributions for detector R&D, detector simulations, testing, quality assurance, commissioning and operations.
- (ii) Provide access to other EIC groups to existing facilities in our laboratory for detector related work.

Institute	Interest
Central Univ. Tamil Nadu - Nirbhay Behera	Silicon Vertexer and Tracker – Characterization and prototype test
IITM – Prabhat R. Pujahari	Silicon Vertexer and Tracker
University of Goa - Prabhakar Palni	Track finding and fitting, MPGD Tracker/PID
Panjab University – Lokesh Kumar	MPGD Tracker/PID
IIT Bombay – Sadhana Dash	Silicon Vertexer and Tracker
Central University Karnataka – Deepak Samuel	DAQ
MNIT Jaipur - Kavita Lalwani	PID and Tracker
RMRCK – Amal Sarkar	PID and Tracker

[Discussions on specific contribution ongoing](#)



EIC-India

We meet bi-weekly on Thursday's at 4:30 PM IST

Our mailing list: eic_india@googlegroups.com

Webpage: <https://www.niser.ac.in/respro/EIC-India/>

We are in the process of writing a proposal for funding to Indian funding agency

Thanks.