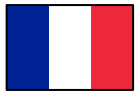
Expression of Interest – EEEmCal


Please indicate the name of the contact person for this submission:

Tanja Horn – CUA – hornt@cua.edu

Please indicate all institutions collectively involved in this submission of interest:

CUA (contact: Tanja Horn), Lehigh U. (contact: Rosi Reed), MIT and MIT-Bates Research and Engineering Center (contact: Richard Milner), U. Kentucky (contact: Renee Fatemi), AANL (contact: Ani Aprahamian), FIU (contact: Lei Guo), Charles U.-Prague (contact: Miroslav Finger), Pending final negotiations: IJCLab-Orsay (contact: Carlos Munoz-Camacho)

Please indicate the items of interest for potential equipment cooperation:

Electron Endcap Electromagnetic Calorimeter (Crystal/Glass)

- Radiator: crystal/glass and characterization
- Design/construction of the frame to hold the crystal/glass bars
- Readout, electronics, detector cabling and infrastructure
- Prototype construction/commissioning and beam tests
- Slow controls and online software
- Calorimeter assembly
- Monte Carlo simulation and comparison with test beam results
- Calibration and monitoring of performance

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Opportunities for engagement of other groups

Please contact us if you would like to join! A few near term possibilities:

- Monte Carlo simulations and analysis
- Slow controls and analysis software
- Component characterization and prototypes (design, assembly, testing)
- Readout and electronics

Additional information you think may be useful for the community to know about your expression of interest.

- The team has a long-standing track record with design and construction of large detectors. As an example, the team has a track record in the design, fabrication, commissioning and operation of EM calorimeters at Jefferson Lab, DESY, and BNL, as well as expertise with and vendor presence for glass scintillators.
- The team has access to students and senior staff, construction capacity plus technical support (machine shop, electronics, cleanrooms) at some institutions
- The team may be able to help with the smaller forward/backward calorimeters
- The project is well-defined and could fit well with any overall detector construction effort with high precision EM calorimetry.
- The project is open for collaboration with other calorimetry efforts.