

IDEA's Eols

Expressions of Interest

- Dual readout calorimeter
 - Detector design and construction
 - Choice of materials (absorber and fibres)
 - Production of the elements
 - Assembly, Quality control
 - Light sensors and Readout
 - SiPM, ASIC, FPGA, signal processing and feature extraction
- Wire Chamber
 - Cluster Counting/Timing
 - Data reduction and pre-processing of drift chamber signals sampled at high rates
 - A prototype of an ultra-light drift chamber with new materials for the next generation of lepton colliders



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IDEA's EoIs

Expressions of Interest

- Preshower and Muon detector
 - Innovative ML-based algorithms for tracking in MPGDs
 - Improve particle tracking (for any incident angle) in modern MPGDs (μRWELL, GEM, MicroMegas, etc.)
 - Optimisation of the Industrial engineering of $\mu RWELL$ detectors with bi-dimensional readout
 - Development and characterisation of integrated electronics for the readout of pixellated $\mu RWELL$ detectors
- Vertex detector
 - Sensor development, both ARCADIA-based solution and HV-CMOS
 - Optimisation of detector mechanics and cooling
- Software
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IDEA Collaboration meeting

IDEA

- New detector concept for an experiment at a Circular e⁺e⁻ Collider
 - Proposed by several INFN groups
 - Accepted by both FCC-ee and CEPC
 - Described in both CDRs
- Collaboration meeting in Bologna
 - June 13th and 14th: https://agenda.infn.it/event/19360/
 - Main items
 - Review of the status of the various sub detectors and software
 - Preparation of EoIs for AIDA-2020++
 - Collaboration with foreign institutes (China, Russia, Croatia, Switzerland, USA, UK)
 - Collaboration with industries, CAEN will participate (Eltos also interested)
- Will be preceded, on June 12th and 13th, by a special Software Workshop
 - Aim is to reach a common software framework
 - Participation from CERN, ILC, CLIC, FCC, CEPC and HSF communities



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