XVII Conference on Resistive Plate Chambers and Related Detectors



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Gaseous Detectors R&D, where do we stand / where do we go

Wednesday 11 September 2024 09:00 (30 minutes)

Rather than focusing on any specific research or technology, this contribution will emphasize the importance of collaborative efforts in advancing R&D in gaseous detector instrumentation.

It begins by contextualizing the setting up of several new R&D collaborations on instrumentation, specifically the newly established DRDs, following the recommendations from the latest European Strategy Update for Particle Physics. The focus will then shift to the DRD1 Collaboration, which encompasses a range of gaseous detector technologies, including Micro Pattern Gas Detectors (MPGD), Resistive Plate Chambers (RPC), and wire-based detectors. The formation of DRD1 has benefited from the experience and heritage of the RD51 Collaboration, an international R&D initiative based at CERN that was dedicated to advancing MPGD technologies. A brief overview of RD51's modus operandi and a series of concrete examples of its impact on the field of R&D in gaseous detectors will be provided. This will be used to highlight the potential benefits of the new DRD1 collaboration in supporting innovation, improving understanding, developing tools, and facilitating the R&D activities of the involved groups. The talk will conclude by outlining current strategies common to all newly established DRD collaborations for securing long-term funding to support ongoing innovation in instrumentation.

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Session Classification: Ecogases and longevity (part I)