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Performance studies of green Resistive Plate Chamber detectors at the CERN Gamma Irradiation Facility

Monday, July 17, 2023 11:00 AM (25 minutes)

Resistive Plate Chamber detectors in HEP and beyond are usually operated with high-performance gas mixtures, containing a relevant fraction of C2H2F4 plus SF6, both greenhouse gases characterized by a very high global warming potential.
Since a few years the RPC EcoGas@GIF++ Collaboration has put in place a big effort to investigate RPCs performance with new, eco-friendly, gas mixtures alternative to the standard ones. The CERN Gamma Irradiation Facility (GIF++) is the ideal place where to test the operation of green RPCs at different level of irradiation, even on a long-term scale.
In this talk, the latest results from beam and ageing tests together with future plans for continued evaluation of environmentally friendly gas mixtures in the context of RPC detectors will be presented.

Details

Dayron Ramos

Is the speaker for that presentation defined?

Yes

Is this abstract from experiment?

Yes

Name of experiment and experimental site

RPC EcoGas@GIF++, CERN

Internet talk

Maybe

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