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## IRRAD: THE NEW 24GeV/c PROTON IRRADIATION FACILITY AT CERN

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The proton and mixed-field irradiation facilities at the CERN PS East Area (known as IRRAD1 and IRRAD2), have been heavily exploited for irradiation of particle detectors, electronic components and materials since 1992. With the increasing demand of irradiation experiments, and in view of the High-Luminosity upgrade of the CERN Large Hadron Collider (HL-LHC), these facilities suffered of a number of unpleasant restrictions such as the space availability, the maximum achievable particle flux and several access constraints. In the framework of the AIDA project, an upgrade of these facilities was carried out during the Long Shutdown 1 (LS1) of the CERN accelerator complex. The new combined East Area IRRADiation facility (EA-IRRAD) was commissioned in October 2014. While the new proton facility (IRRAD) continue to be mainly devoted to the radiation hardness studies for the High Energy Physics community, the new mixed-field facility (CHARM) mainly hosts irradiation experiments for the validation of electronic systems used in CERN accelerators. In this presentation, we describe the new IRRAD proton facility in terms of layout, area equipment and potential for future irradiation experiments.

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