



Contribution ID: 53

Type: **not specified**

# The CERN Gamma Irradiation Facility (GIF++) operation during the CERN Long Shutdown 2 and planned upgrades to the facility

*Monday, 14 January 2019 17:30 (20 minutes)*

The Gamma Irradiation Facility (GIF++) is a mixed photon/muon irradiation facility designed for the needs of the particle detector community working with muon detectors, especially the upgrade programs of the LHC experiments for the HL-LHC. Inside a shielding bunker it hosts a nominal 14 TBq Cs Irradiator, operated throughout the year. In addition, a medium intensity muon beam is provided (from H4 beam line) for approximately 6-9 weeks per year. The facility provides two independent radiation fields, each one equipped with an attenuation system of iron/lead filters, with the purpose of optimizing the gamma field for the required tests. Since its first year of operation in 2015, the facility is constantly overbooked, the main limitation being the large size of the detectors and the limited space inside the irradiation bunker. During the LS2, the work will even intensify, as several mass-production test of muon chambers are scheduled.

This talk will present the plans to significantly enlarge the Irradiation Bunker by 40 m<sup>2</sup>, to be able to host more detectors and better combine different irradiation requirements. Planned updates to the Cosmic Trigger setup and general improvements to the facility, currently under implementation, will be shown.

**Primary authors:** JAEKEL, Martin Richard (CERN); PEZZULLO, Giuseppe (CERN); RAVOTTI, Federico (CERN); CHARITONIDIS, Nikolaos (CERN)

**Presenter:** JAEKEL, Martin Richard (CERN)

**Session Classification:** Facilities & Infrastructure