



Contribution ID: 292

Type: talk

Gamma Factory for CERN: concept and progress report

Tuesday, September 17, 2019 4:50 PM (20 minutes)

The Gamma Factory (GF) proposal is based on the use of partially stripped ion (PSI) beams as drivers of a novel high intensity and high energy (0.1-400 MeV) photon source. We describe the GF concept, the results of the initial beam tests carried out in 2017-2018 at the SPS and LHC with partially stripped xenon and lead beams and we discuss the preparation for proof-of-principle experiment at the SPS to study collisions of PSI beams with the laser pulses.

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Session Classification: WG8

Track Classification: WG8 - Advanced and novel accelerators for High Energy Physics