

Operational experience and reliability of the new CERN Linac4

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Since its completion in 2017, Linac4, the new 160 MeV proton injector for the CERN accelerator complex, has undergone some tests to assess and improve reliability, until being connected to the Proton Synchrotron Booster (PSB) during the 2018-2020 Long Shutdown 2 (LS2). The performance requirements for the LHC high-luminosity upgrade have been successfully met, and during its first three complete years of operation the linac has shown high reliability figures. Recent improvements of the H⁻ ion source enable the increase of the beam current from the nominal 35 mA to 50 mA, opening the possibility for increasing the intensity of the Booster beams, for the benefit of the experimental programmes. This paper presents the operational experience and reliability of Linac4 in its first three years of operation.

Footnotes

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