

Radio Frequency systems at CERN - for the LHC and beyond

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Present the large variety of Radio Frequency Systems in operation at CERN, both in the LHC and its injector chain. For the ongoing LHC luminosity upgrade project, crab cavity prototypes are in construction and possible harmonic systems are under study. The LHC injectors are upgraded with a new proton linac (Linac4) and new amplifiers and beam control systems for the synchrotrons. I will then present studies for RF systems for possible future accelerators beyond the LHC, including CLIC (a normal-conducting Linear Collider), the LHeC (complementing the LHC with an electron accelerator) and possible very large circular machines for both lepton and hadron colliders (FCC). Many future concepts are based on superconducting RF technology, where CERN is in the process of reestablishing its facilities and skills in a coordinated R&D programme, complementary to the strong global SRF R&D activities.