

RF system parameters for Z, W, H and tt

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The FCC-ee RF system must handle beams at different energies and beam intensities ranging from the high energy case of a few mA at 175 GeV to the heavily beam loaded situation at 1.45 A and 45.5 GeV. Higher order mode power will be a major issue at the highest beam intensities. A conceptual design of the FCC RF system is proposed along with staging schemes and highlights of specific R&D topics to reach the design performance. Challenges related to RF structure design, RF powering and higher order modes are addressed. Optimum configurations and synergies between the different collider modes and the hadron collider are identified.

Primary author: BRUNNER, Olivier (CERN)

Presenter: BRUNNER, Olivier (CERN)

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