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Recent developments in the design of the HIE-ISOLDE Superconducting Recoil Separator (ISRS)
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Abstract
Nuclear physics research developed at international radioactive beam facilities is leading to unprecedented discoveries in the structure and dynamics of nuclei. The radioactive beam facility "Isotope mass Separator On-Line facility"(ISOLDE) at CERN [1] is a world leading infrastructure in basic and applied nuclear physics research, currently producing post-accelerated radioactive beams in the energy range 0.5 - 10 MeV/A with the HIE-ISOLDE linac [2]. The scientific program covers a broad range of topics, from basic nuclear structure to nuclear astrophysics [3]. These studies can benefit from the use of a high-resolution recoil separator, the HIE-ISOLDE Superconducting Recoil Separator (ISRS) [4]. In this contribution we will discuss last technical developments, including beam dynamics, SC magnets and cryostats.
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