

Hadron and heavy-ion accelerators/colliders - Radiation Protection in Accelerators - Lessons Learnt

Thursday 26 October 2023 08:35 (55 minutes)

The lecture discusses Radiation Protection (RP) aspects that are unique to high energy accelerators. They arise due to the long time span from conception to dismantling of such facilities, their complexity and size as well as their dynamic operational requirements. The Large Hadron Collider (LHC), the world's largest and highest-energy particle collider, in operation at CERN since 2008, serves as example throughout the presentation on which the needs for innovation in all areas of RP, from legislative aspects, over radiological assessments to radiation monitoring and operational tools are illustrated. While focus is on lessons-learnt, the lecture will also sketch some basic quantities and concepts of RP essential for a socially responsible and optimized operation of accelerators that inevitably emit ionizing radiation and produce radioactive waste.

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