

MPS Strategy for Commissioning and Operation

Tuesday, September 23, 2014 5:00 PM (20 minutes)

During Run 2, when operating at 6.5TeV and 25 ns bunch spacing, the LHC will accelerate and store beams with an energy of up to 372MJ. A very tiny fraction of this beam can cause severe damage to accelerator equipment if the energy is released in an uncontrolled way. The presentation addresses the machine protection considerations for the initial commissioning with and without beam and discusses the required (re-)qualifications for subsequent changes of beam/optics parameters during the run. The definition of the new setup beam intensity - impacting commissioning and later operation and machine developments - is recalled. The talk will conclude with an outlook on future challenges with respect to machine protection in view of the injector upgrade and HL-LHC.

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Session Classification: Session 4 - LHC: Challenges and Strategy for Run2