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The ALICE Upgrade: Future Prospects

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The Large Hadron Collider at CERN along with all its experiments are in a shutdown period preparing for a large luminosity upgrade. This upgrade presents both challenges and opportunities to the experiments. For ALICE, this large increase in luminosity necessitates an upgrade in the electronics for many subsystems to cope with a much larger event rate. Additionally, the subsystems themselves are being upgraded or replaced to be able to run in these conditions and provide new capabilities. The inner tracking system of ALICE is being replaced to provide higher vertex and track pointing resolution and the time projection chamber is being upgraded to allow for continuous readout employing GEM detectors. These new capabilities along with the associated increase will open new avenues of study for ALICE concerning heavy-flavor, quarkonia, low mass dileptons, and jets. This talk will outline the current upgrade projects along with which new physics results can be expected from ALICE with the new high luminosity beams.

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