

Physics with the Upgraded ALICE Experiment

Tuesday 10 September 2013 11:30 (30 minutes)

The recently accepted Letter of Intent for the upgrade of the ALICE experiment sets the stage for the physics program once the original goal of $1/\text{nb}$ of Pb-Pb of the currently approved program have been achieved. This talk will focus on some of the current highlights of elementary pp, pPb, and Pb-Pb collisions at the LHC and demonstrate, how the upgrade will lead into a new era of precision measurements of the quark-gluon plasma. Following the upgrade of the major detectors, they will be able to cope with an interaction rate of 50 kHz in Pb-Pb collisions. With this set-up $10/\text{nb}$ shall be collected starting around 2019. With the anticipated increase in the inspection rate by an order of magnitude, the sensitivity of the experiment to rare probes will increase by two orders of magnitude.

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