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Silicon tracker detector for the ALICE upgrade

ALICE is a general-purpose experiment at CERN dedicated to the study of nucleus-nucleus collisions at the LHC.

In 2019-20 during the second LHC shutdown (LS2) the ALICE detector will be upgraded in order to improve its capability of studying rare probes like charmed and beauty mesons and baryons. One of the key parts of this upgrade

is the replacement of the whole Inner Tracking System (ITS) with the new silicon tracker composed of 7 layers of CMOS Pixel Sensors (CPS).

CPS allow for higher pixel granularity and lower material budget with respect to hybrid pixel sensors used in LHC experiments so far.

Therefore it becomes possible to increase the pointing resolution of the detector by at least a factor of 3 with respect to the present ITS.

In this contribution we will describe the detector design and the current production status.

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