Title: Overview of depleted CMOS sensors for Future Tracking Detectors.

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Abstract.

Depleted Complementary Metal-Oxide-Semiconductor (CMOS) sensors are emerging as one of the main candidate technologies for future tracking detectors in high luminosity colliders. Their capability of integrating the sensing diode into the CMOS wafer hosting the front-end electronics allows for reduced noise and higher signal sensitivity, due to the direct collection of the sensor signal by the readout electronics. They are suitable for high radiation environments due to the possibility of applying high depletion voltage and the availability of relatively high resistivity substrates. The use of a CMOS commercial fabrication process leads to their cost reduction and allows faster construction of large area detectors. In this seminar, I will show a general perspective of the state of the art of CMOS detectors for High Energy Physics experiments. I will also summarize the main developments carried out with regard to these devices in the framework of the CERN RD50 collaboration.