

ALICE 3: Outer Tracker project from the Korea ALICE group

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1 ALICE 3 is the next-generation detector system proposed for LHC Runs 5 and
2 6. Its main tracking system is based on CMOS Monolithic Active Pixel Sensor
3 (MAPS) technology, providing broad pseudorapidity coverage and consisting of an
4 Inner Tracker (IT) and an Outer Tracker (OT). This talk focuses on the ongoing
5 efforts on the OT project by the Korea ALICE group (KoALICE).

6 The OT is composed of three barrel layers and 12 forward disks, with a total
7 active area exceeding 60 m². The detector is designed to provide excellent tracking
8 performance while maintaining a low material budget, making it a key component
9 of the ALICE 3 physics program. KoALICE contributes to multiple aspects of
10 the OT project, including sensor post-processing, module design and production,
11 and disk design and assembly. Recent progress in these activities, together with
12 the current status of the detector R&D, will be presented, highlighting KoALICE's
13 contributions to the development of the ALICE 3 Outer Tracker.