

Status overview of Korean group activities for MTD Endcap Timing Layer development

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During the High-Luminosity phase of the LHC (HL-LHC), the CMS experiment will be upgraded with a new MIP Timing Detector (MTD), which will provide precise time measurements for charged particles up to a pseudorapidity of $|\eta| = 3$. This precise timing capability will help address the complex pile-up environment anticipated at HL-LHC, thereby extending the experiment's sensitivity to new physics. The forward region of the MTD, known as the Endcap Timing Layer (ETL), will cover a pseudorapidity range of $1.6 < |\eta| < 3$ and will be equipped with Low-Gain Avalanche Diodes (LGADs) paired with the Endcap Timing Read Out Chip (ETROC). This talk will present an overview of the activity of the Korean MTD group.

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