



Contribution ID: 87

Type: Talk (invited speaker only)

## [D01] Precision Timing with the CMS MTD Endcap Timing Layer for HL-LHC

*Thursday 8 October 2020 20:00 (30 minutes)*

The CMS MIP Timing Detector (MTD) is designed to provide precision timing information, with resolution of  $\sim 40$  ps per layer for charged particles, with hermetic coverage up to a pseudo-rapidity of  $|\eta|=3$ . The endcap region of the MTD, called the Endcap Timing Layer (ETL), will be instrumented with silicon-based low gain avalanche detectors (LGADs), covering the high radiation pseudo-rapidity region between  $|\eta|=1.6$  and  $3.0$ . We will provide an overview of the ETL design and present recent results from the R&D and test beam studies of the LGAD and the readout ASIC performance.

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**Session Classification:** Timing Detector I