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Timing performance of the RD50 HV-CMOS

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Monolithic Active Pixel Sensors (MAPS) provide excellent criteria in terms of pixel size and material budget and have become one of the most promising candidates for future tracking detectors. Beyond these aspects, timing is becoming an increasingly important aspect for tracking detectors, whether it is to reduce event complexity or provide particle identification via Time of Flight.

In this contribution I give an overview of the analog time resolution achieved through test pulse and bottom Transient Current Technique (TCT) measurements.

Measurements were performed both with the most recent RD50 HV-CMOS, the RD50-MPW3, and a comparison to results achieved with its predecessor, the RD50-MPW2, are presented.

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