

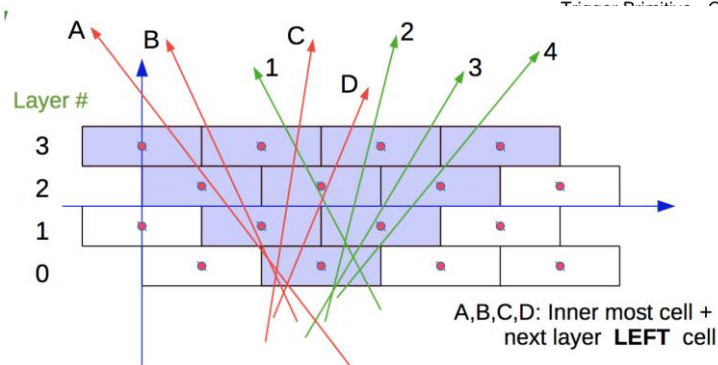
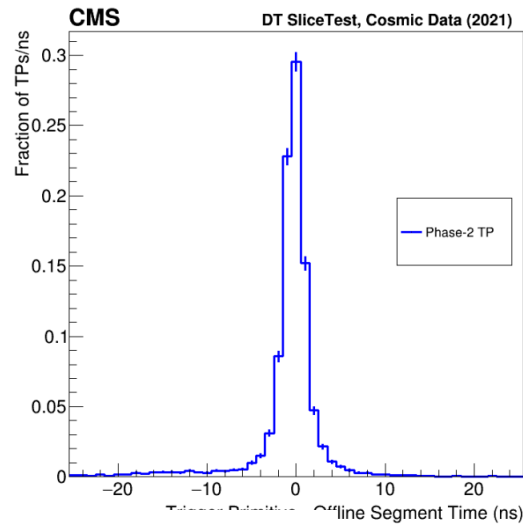
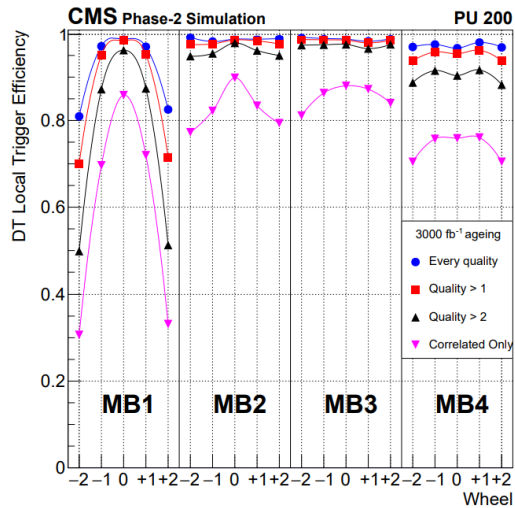
The Layer-1 Barrel Muon Filter for the Level-1 muon trigger upgrade of the CMS experiment at the HL-LHC



Javier Prado Pico (University of Oviedo) on behalf of the CMS collaboration

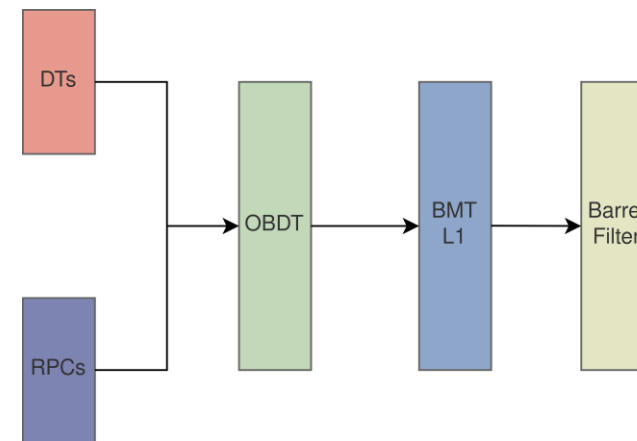
Universidad de Oviedo

Analytical method (AM)



Layer-1 Barrel Muon Filter

Dedicated FPGA boards for simultaneous readout of the DT+RPC system. Matching segments within a **25ns window** is **99% efficient**



- ▷ Particle **shower identification** for high momentum muon tagging and hadronic shower reconstruction
- ▷ **Reduced data volume**