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High Precision Timing Distribution for HL-LHC

Study the HL-LHC pile-up impact on clock distribution systems and analysing the needs and requirements from experiments in terms of timing distribution in order to fight high pile-up effects of High Luminosity LHC. For this, one needs to define a common set of Figures of Merits (FoMs) allowing the characterization of a timing distribution system per application in the framework of LHC experiments. Review the proposed equipment references and methodologies to assess timing distribution systems against each HPTD FoM in a systematic and comparable way. Characterize and optimize existing components and clock distribution systems against these procedures. Provide tools or methods to help experiments optimize their systems and a framework to experiments to assess their systems against these methods

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