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Does anybody really know the time it is?

Thursday, 18 March 2021 12:40 (15 minutes)

Every timing detector needs to know the time, and every timing detector needs to refer to the same reference clock. As we push the limits of the timing precision of new detectors, we need to distribute to these detectors a reference clock that has a precision that is much better than the detector's. In this presentation we will describe how we have demonstrated the feasibility of delivering multiple reference clocks, with an inter-clock precision of less than 0.5 picoseconds, how to measure small changes between the clocks due to environmental and other effects, and how to correct them in real time.

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