



Département d'Électronique des DéTECTEURS et d'Informatique pour la Physique

Rencontre du DEDIP

Jeudi 06/09/2018, 11h15-12h15

Bat 141, salle André Berthelot, CEA Paris-Saclay

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STREAM

Precision Clock Distribution studies for timing in phase II upgrade of the CMS experiment

Due to challenging conditions of the HL-LHC, the CMS detectors are undergoing a system-wide upgrade, and specifically the complete redesign of the end cap sub-detectors.

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To reach the aimed resolution of 30 ps RMS on events timing information, a precision clock distribution system providing a readout clock with a sub 15 ps RMS jitter is necessary.

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This talk will present the state of the artÂ of theÂ precision clock distribution systemÂ and then focus onÂ theÂ R&D dedicated to the low-jitter clock distribution.