RUTGERS

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HIGH ENERGY EXPERIMENTAL SEMINAR

Monday, April 10, 2017 – 4:30pm

Si Xie
Fermilab

"Precision Timing for Future Collider Experiments"

Abstract:

Future collider experiments will be required to deliver instantaneous luminosities well beyond 10^34 cm^-2s^-1 that the LHC is currently able to produce. Fast detector elements with the capability for precision time measurements at the 20ps level will be one of the important future technological enablers. I will discuss recent work in precision timing technologies developed in the context of the phase 2 upgrade of the CMS experiment for both calorimetery as well as charged particle detection. I will also summarize future implementations of dedicated precision timing detectors at the High-Luminosity LHC and beyond.

Room 385 E