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Detector Performance in the SLHC era at CMS BRIAN FRANCIS, University of Virginia, CMS COLLABORATION — The future upgrade in instantaneous luminosity at the Large Hadron Collider, the Super LHC, introduces challenging demands on existing and future instrumentation at the Compact Muon Solenoid experiment. The increased particle and radiative flux, especially in the forward regions, requires extensive study to understand aging effects of the detector and any future materials to be considered. Additionally with increased luminosity, the incidence of multiple events in a single beam crossing poses difficulties in detector performance and energy resolution in the calorimeter sub-system. This poster presents the University of Virginia's efforts in understanding these effects in the SLHC era, with a focus on the electromagnetic calorimeter subsystem.

Brian Francis University of Virginia

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