## Abstract Submitted for the PSF12 Meeting of The American Physical Society

## Data throughput testing for the CMS pixel upgrade DAVID GIER,

University of Kansas/CMS Collaboration — The Optical Hybrid converts a differential signal to an optical signal as part of the data readout chain for the CMS detector at the Large Hadron Collider at CERN. The current Analog Optical Hybrid must be updated to a Pixel Optical Hybrid which can run at the 400Mbps rate of the upcoming Pixel Detector upgrade. This project tests the optical hybrids by examining eye diagrams, simulating data streams from the detector and constructing bit error rate tester firmware.

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