Abstract Submitted for the APR09 Meeting of The American Physical Society

Searches for New Physics in Photonic Final States at the LHC with CMS¹ ANDY YEN, California Institute of Technology, CMS COLLABORATION — A brief summary of the CMS discovery potential for New Phenomena in selected photonic final states is presented. These include searches for diphoton resonances from Higgs and Randall Sundrum graviton decays, as well as a search for compositeness in excited lepton decays. Since the CMS discovery in these channels will rely heavily on performance of the CMS electromagnetic calorimeter, the relevant aspects of its design and operation in situ at the LHC are also discussed.

¹Supported by the Caltech Summer Undergraduate Research Fellowships program.

Andy Yen California Institute of Technology

Date submitted: 08 Jan 2009 Electronic form version 1.4