Abstract Submitted for the APR10 Meeting of The American Physical Society

Searches for New Physics with Photons in CMS at LHC¹ HAR-VEY NEWMAN, Caltech, CMS COLLABORATION — A brief summary of the CMS discovery potential for new physics involving signatures with photons in the final state is presented. In particular, searches in the coming years for ADD gravitons, Unparticles and Gauge-Mediated Supersymmetry in diphoton final states, and searches for compositeness in excited lepton decays are described. Since the 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.

¹Work supported by DOE Office of Science Grant DE-FG02-92-ER40701.

Harvey Newman Caltech

Date submitted: 19 Oct 2009 Electronic form version 1.4