Abstract Submitted for the MAR17 Meeting of The American Physical Society

Photostriction in two dimensional ferroelectrics¹ RAAD HA-LEOOT, CHARLES PAILLARD, BIN XU, BOTHINA HAMAD, LAURENT BELLAICHE, SALVADOR BARRAZA-LOPEZ, Univ of Arkansas-Fayetteville — Within density-functional theory, we study light-induced structural deformations in two dimensional ferroelectrics due to their non-centrosymmetric nature. This effect, known as photostriction, was recently studied in bulk ferroelectrics [1]. [1] C. Paillard et al. *Physical Review Letters.* 116(24):247401, 2016.

¹SBL is funded by DOE (SC0016139) and NSF-XSEDE (TG-PHY090002), C. P. is funded by ANR (ANR-10-LABX-0035, Labex NanoSaclay), L. B. and B. X. funded by DARPA Grant No. HR0011-15-2-0038, and Air Force Office of Scientific Research (FA9550-16-1-0065.)

> Raad Haleoot Univ of Arkansas-Fayetteville

Date submitted: 11 Nov 2016

Electronic form version 1.4