

Abstract Submitted
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Piezo-Magneto-Electric Effects in p-Doped Semiconductors OSKAR VAFEK, ANDREI BERNEVIG, Stanford University — We investigate the appearance of a uniform magnetization in strained three dimensional p-doped semiconductors with inversion symmetry breaking subject to an external electric field. We compute the magnetization response to the electric field as a function of the direction and magnitude of the applied strain. This effect could have potential application in manipulation of the collective magnetic moment of hole mediated ferromagnetism of magnetically doped semiconductors.

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