

Abstract Submitted
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Study of Charge Density Wave Modulations in the Extended Hubbard Model¹ SAUMYA BISWAS, ROGER LAKE, University of California Riverside — Charge density wave (CDW) modulations in a two-dimensional lattice are modeled in the mean field approximation using the extended Hubbard Hamiltonian. The electron phonon coupling is included with an on-site interaction term. The effect of coupling strength and Fermi level on the CDW wavelength and amplitude is examined. Periodic and closed boundary conditions are considered. The effect of potential modulation by electrostatic gating on the CDW phase and wavelength is calculated.

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