

Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Ordering in Conformal Crystals VISHAL SONI, University of Chicago, LEOPOLDO GOMEZ, Universidad Nacional del Sur - CONICET, WILLIAM IRVINE, University of Chicago — Condensed matter systems commonly undergo ordering processes that are frustrated by geometric constraints. Experiments on interfacial colloidal systems have resulted in several recent insights into the two dimensional ordering of crystalline lattices frustrated by Gaussian curvature. We study the ordering of flat colloidal Wigner crystals immersed in an axially symmetric potential. By relating the resulting inhomogeneous structure to a lattice with Gaussian curvature, we investigate the role of topological defects in organizing the conformal crystal-like ground state.

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Date submitted: 15 Nov 2013

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