

Abstract Submitted
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Crystalline order on the paraboloid LUCA GIOMI, MARK BOWICK,
Syracuse University — We describe an experimental and theoretical investigation of crystalline order on a two-dimensional paraboloid. In contrast to the sphere, the paraboloid exhibits both variable Gaussian curvature and a boundary. Both these features must be treated for a thorough theoretical understanding. A macroscopic model of a parabolic crystal can be obtained in the laboratory by assembling a single layer of soap bubbles on the surface of a rotating liquid, thus extending the classic work of Bragg and Nye on planar arrays of soap bubbles.

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