Abstract Submitted for the MAR06 Meeting of The American Physical Society

Anomalous Coupling Between Superfluid Vortices and Curvature ARI TURNER, VINCENZO VITELLI, DAVID NELSON, Harvard University — Vortices in a thin film of superfluid helium on a curved surface are predicted to have a long range interaction with the curvature of the surface. Vortices are trapped by features of the surface with appropriate Gaussian curvature. The energetics will be compared and the dynamics contrasted with those of particles experiencing a two dimensional Coulomb force.

> Ari Turner Harvard University

Date submitted: 30 Nov 2005

Electronic form version 1.4