

Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Universal response of quantum hall states to lattice curvature

RUDRO BISWAS, Department of Physics, Purdue University, DAM SON, Kadanoff Center for Theoretical Physics, University of Chicago — In this talk I shall present general results for the response of quantum Hall states to points of singular real-space curvature. The salient results are that (i) points of singular curvature bind an excess fractional charge and (ii) bound states appear in the inter-Landau level energy gap whose energies are universal functions of bulk parameters and the curvature. Time permitting, I will comment on the implications of these results.

Rudro Biswas
Department of Physics, Purdue University

Date submitted: 06 Nov 2015

Electronic form version 1.4