

Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Effects of finite layer thickness on the differential capacitance of electron bilayers¹ J.J. DURRANT, C.B. HANNA, Boise State University — We have calculated the effects of the finite thickness of electron or hole layers in double-quantum-well systems on the complete set of differential capacitances that can be measured in double-layer electron systems, with or without separately contactable layers. We present results for the regime of negligible interlayer tunneling, zero applied magnetic field, and low layer densities, when the compressibility of one or both layers is negative.

¹Work supported by NSF Grant No. DMR-0605652 and by the Boise State McNair Scholars Program.

Charles Hanna
Boise State University

Date submitted: 27 Nov 2007

Electronic form version 1.4