Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Local Gating in Carbon Nanotubes JOSEPH SULPIZIO, Deparment of Physics, Stanford University, CHARIS QUAY, Stanford University, DAVID GOLDHABER-GORDON, Deparment of Physics, Stanford University — Single Wall Carbon Nanotubes (SWNTs) exhibit a host of remarkable physical properties. Their unique electronic structure suggests that SWNTs are ideal for studying the rich physics of one-dimensional (1D) quantum systems. Local gating enables the creation of tunable structures where such phenomena can be experimentally studied. We have fabricated locally-gated SWNT devices and have performed low-temperature electronic transport measurements. We present our recent data and discuss the results in the context of 1D mesoscopic systems.

Joseph Sulpizio
Department of Physics, Stanford University

Date submitted: 27 Nov 2007 Electronic form version 1.4