Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Dephasing of the weak localization correction in networks of quantum dots[1] JOERN N. KUPFERSCHMIDT, PIET W. BROUWER, LASSP, Cornell University — We consider the corrections to the conductance of networks of quantum dots due to electron-electron interactions. Interaction corrections are calculated to first order in the propagator associated with the capacitive coupling among the dots. We focus in particular on calculating the dephasing correction to the weak localization correction and the Altshuler-Aronov correction to the conductance.

[1]Supported by the Cornell Center for Materials Research

Joern N. Kupferschmidt
LASSP, Cornell University

Date submitted: 21 Nov 2007 Electronic form version 1.4