Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

The 0.7 anomalous conductance[1] D. SCHMELTZER, Ccny-Cuny, A. KUKLOV, Csi-Cuny — At low electronic densities and finite temperatures the method of one dimensional Bosonization is not applicable. We introduce the *zero modes* method to incorporate Fermi Dirac Statistics. We compute the conductance at finite temperatures in the presence of long range *Coulomb* and biased *umklapp* interactions. We show that the 0.7 conductance anomaly appears at low densities when the Fermi energy and the temperature are of the same order of magnitude.

[1]Cuny Collaborative grant -2007-2008

D. Schmeltzer
Ccny-Cuny

Date submitted: 14 Nov 2008 Electronic form version 1.4