Abstract Submitted
for the MAR07 Meeting of
The American Physical Society

Mott-Hubbard Scenario for the Metal-Insulator Transition in the Two Dimensional Electron Gas PING SUN, Rutgers University — We exam the experimental observations of the metal-insulator transition in Si-MOSFET and GaAs quantum well. We find that the observed critical behaviors in the magneto transport experiments can be understood within the Mott-Hubbard scenario. Disorder, while playing an important role in both metallic and insulating phases, does not affect the universal critical behaviors.

Ping Sun
Rutgers University

Date submitted: 20 Nov 2006 Electronic form version 1.4