

Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

δ -doped SrTiO₃ heterostructure in high magnetic fields SCOTT RIGGS, MINU KIM, Stanford University, CHRIS BELL, Stanford University, IAN FISHER, Stanford University, ROSS MACDONALD, National High Magnetic Field Lab, HAROLD HWANG, Stanford University — High mobility 0.1% δ -doped STO magneto-transport has been measured in high magnetic fields as a function of angle. The Nb:SrTiO₃ doping layer is 25 nm thick and sandwiched between insulating SrTiO₃ buffer and cap layers on an SrTiO₃ substrate, putting it well within the 2-dimensional limit. The system exhibits Shubnikov-de Haas oscillations over the entire angle range measured. The resulting interplay between multiple sub-bands as the system approaches the quantum limit will be discussed.

Scott Riggs
Stanford University

Date submitted: 29 Nov 2011

Electronic form version 1.4