

Abstract Submitted
for the MAR13 Meeting of
The American Physical Society

Quantized Conductance in InAs/GaSb Quantum Wells¹ LINGJIE DU, IVAN KNEZ, RUI-RUI DU, Department of Physics and Astronomy, Rice University, Houston, Texas 77251-1892, USA, GERALD SULLIVAN, Teledyne Scientific and Imaging, Thousand Oaks, California 91630, USA — We have studied electrical transport in inverted InAs/GaAs quantum wells (QWs) made by molecular beam epitaxy, in which the evidences for helical edge modes were observed in mesoscopic samples with either normal or superconductor contacts. Here we report on measurements of QWs that are doped with Si at the InAs/GaSb interface, where Si is a donor in InAs and an acceptor in GaSb. The influences of induced disorder in the quantum Spin Hall effect as well as outside this regime are systematically studied and results will be presented.

¹The work is supported by NSF DMR-0706634 and DMR-1207562.

Lingjie Du
Department of Physics and Astronomy, Rice University

Date submitted: 09 Nov 2012

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