

Abstract Submitted  
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**Andreev tunneling enhanced by Coulomb oscillations in superconductor-semiconductor hybrid Ge/Si nanowire devices** XIAOJIE HAO<sup>1</sup>, Key Laboratory of Quantum Information, CAS, University of Science and Technology of China, Hefei, China; University of Michigan, USA, TAO TU, HAI-OU LI, CHENG ZHOU, GANG CAO, GUANG-CAN GUO, GUO-PING GUO, Key Laboratory of Quantum Information, CAS, University of Science and Technology of China, Hefei, China, WAYNE FUNG, ZHONGQING JI, WEI LU, Department of Electrical Engineering and Computer Science, The University of Michigan, Ann Arbor, USA — We explore the magneto-conductance of Ge/Si core/shell nanowire quantum dot devices contacted by superconducting leads. Significant magneto-conductance peaks around zero field are observed and show a periodic modulation with gate voltage as discrete states of the quantum dot are turned on- and off-resonance with the Fermi energy in the superconducting electrodes. The ability to create and control coherent transport in superconductor-semiconductor hybrid nanostructures allows for new opportunities in the study of various fundamental competing effects such as superconductivity and electron-electron interactions.

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