

Abstract Submitted
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Suppressed Conductance From Spin Selection Rules in F-CNT-F Quantum Dots¹ NIKOLAUS HARTMAN², TYLER MORGAN-WALL, NINA MARKOVIC³, Johns Hopkins University — Conductance through a quantum dot can be suppressed due to spin selection rules governing the hopping of an additional electron onto an already-occupied quantum dot. Measurements of this effect in a carbon nanotube quantum dot with ferromagnetic contacts will be presented. Suppressed conductance peaks are observed in the Coulomb diamond plots at zero field and explained using spin selection rules. The pattern of suppressed peaks is observed to change with applied magnetic field as the spin ground state of the occupied quantum dot changes.

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