

Abstract Submitted  
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**Transition from Coulomb Blockade to Resonant Transmission in a MoS<sub>2</sub> Nanoribbon** YANJING LI, NADYA MASON, University of Illinois at Urbana-Champaign — We have measured a side-gated nanoribbon of MoS<sub>2</sub> at low temperature, and observed the transition from Coulomb blockade to resonant transmission when the Fermi level is tuned with a gate. We show that near the crossover between these regimes, the entire nanoribbon acts as a single quantum dot. Our findings may shed light on quasi-ballistic transport in the material. We also discuss the quantum dot formation in terms of a substrate-induced disorder potential, and consider other possible origins of disorder.

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