Shot Noise of a Quantum Point Contact¹ YIMING ZHANG, Harvard University, LEONARDO DICARLO, Harvard University, DOUGLAS MCCLURE, Harvard University, DAVID REILLY, Harvard University, CHARLES MARCUS, Harvard University, LOREN PFEIFFER, Bell Laboratories, KEN WEST, Bell Laboratories — We report detailed simultaneous measurements of shot noise and DC transport in a quantum point contact (QPC) as a function of source-drain bias, gate voltage and in-plane magnetic field. The magnetic field evolution of the 0.7 feature in both conductance and noise is clearly visible and is compared to a simple model, giving good quantitative agreement.

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