

Abstract Submitted  
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**Out-of-equilibrium Kondo Effect in a Three Lead Quantum Dot**

I. G. RAU, Stanford University, R. M. POTOK, Harvard University and Stanford University, D. GOLDHABER-GORDON, Stanford University, H. SHTRIKMAN, Weizmann Institute — We present measurements of a small GaAs quantum dot in a three lead geometry with the third lead used both as a probe of Kondo resonances and wavefunction coupling to the various reservoirs. Kondo correlations produce an enhanced density of states at the Fermi level in each reservoir. We demonstrate that the third lead probes the individual out-of-equilibrium densities of states of the two other leads when a voltage bias is fixed across them. In addition, information about the spatial distribution of quantum dot wavefunctions can be inferred from presence or absence of Coulomb blockade features in the third lead. Research supported by an NSF CARRER award DMR-0349354. RMP acknowledges support from an ARO Graduate Fellowship.

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