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Progress towards microwave readout of a silicon double quantum dot[1] A.R. SCHMIDT, E. HENRY, QNL, UC Berkeley, M. HOUSE, UCLA, Y.T. WANG, UC Berkeley, C.C. LO, University College London, UC Berkeley, H. LI, L. GREENMAN, UC Berkeley, H. PAN, M. XIAO, UCLA, K.B. WHALEY, UC Berkeley, H.-W. JIANG, UCLA, E. YABLONOVITCH, J. BOKOR, I. SIDDIQI, UC Berkeley — Microwave resonators coupled to quantum systems have been used for fast dispersive measurement in several different architectures in solid state and atomic physics. The electronic states of a semiconductor quantum dot represent a promising candidate for quantum information processing. Our work is geared toward developing a fast, non-demolition readout of a semiconductor qubit in silicon through coupling to a superconducting microwave resonator. We report progress on a novel design of a lateral

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