

Abstract Submitted
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A few-electron triple quantum dot incorporating two fast charge sensors¹ EDWARD LAIRD, CHARLES MARCUS, Department of Physics, Harvard University, MICAH HANSON, ART GOSSARD, Materials Department, University of California at Santa Barbara — A triple quantum dot is defined in a GaAs heterostructure. The occupation of all three dots is monitored using two nearby charge sensing point contacts. Radio frequency multiplexing in a reflectometry setup allows MHz-bandwidth measurements of both charge sensors independently. Configuring the device in the few-electron regime, we achieve coherent spin manipulation using the exchange interaction.

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Edward Laird
Department of Physics, Harvard University

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