Abstract Submitted
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Coherent individual addressing of neutral atom qubits in a 3D optical lattice YANG WANG, XIANLI ZHANG, THEODORE A. CORCOVILOS[1], AISHWARYA KUMAR, DAVID S. WEISS, Physics Department, The Pennsylvania State University, 104 Davey Lab, University Park, PA, 16802, USA — A collection of neutral atoms in a 3D optical lattice is a candidate quantum computer.We have recently demonstrated the ability to perform arbitrary single qubit rotations on target atoms in a 5x5x5 array, without affecting quantum information stored in other atoms. This is an important step in the demonstration of scalability in neutral atom quantum computers.

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