

Optimizing Quantum Gates for a 1D Chain of Directly Coupled Transmon Qubits

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I will present our recent study on 1D arrays of directly coupled transmon qubits. These devices have undergone comprehensive simulation, design, and fabrication processes within our laboratory. I will provide an overview of our readout strategies and testing methodologies for both single-qubit and twoqubit logic gates, including the fine adjustment of CZ gate parameters. Additionally, I will delve into our experimental endeavors involving five qubits, showcasing and validating their entanglement.