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Rapid Adiabatic Passage for robust quantum gates FABIO ALTOMARE, JAE PARK, RAYMOND SIMMONDS, National Institute of Standards and Technology, JAMES BAUMGARDNER, ARON PESETSKI, RUPERT LEWIS, NGC — Rapid adiabatic passage has been suggested as tool to coherently transfer population between two capacitively coupled phase qubits. Together with single qubit rotations, rapid adiabatic passage can be used to generate universal logic gates for quantum computing. In this talk we will describe our experimental effort to use rapid adiabatic passage to transfer an excitation between two phase qubits capacitively coupled to a coplanar waveguide.

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