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Generation of entanglement between three superconducting qubits distributed among four waveguide cavity resonators[1] STEFANO POLETTO, JAY M. GAMBETTA, ANDREW W. CROSS, DOUGLAS T. MCCLURE, OLIVER DIAL, JERRY M. CHOW, CHRIS B. LIRAKIS, MATTHIAS STEFFEN, IBM T.J. Watson Research Center — The 3D architecture for superconducting qubits enabled long coherence times qubits and the ability to hand-select both qubits and cavities alike for optimal parameter selection. A crucial next step towards larger systems consists of spreading entanglement between qubits sharing different cavities. In this talk we present the experimental generation of entanglement on a 3-qubit/4-cavity three-dimensional superconducting architecture obtained by the implementation of the Resonator Induced Phase (RIP) gate.

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Stefano Poletto
IBM T.J. Watson Research Center

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