Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Energy Transfer in a System of Coupled Superconducting Qubits
ANTON POTOCNIK, ARNO BARGERBOS, MICHELE C. COLLODO, SIMONE GASPARINETTI, ETH Zurich, FLORIAN A. Y. N. SCHROEDER, CELESTINO CREATORE, ALEX W. CHIN, University of Cambridge, CHRISTOPHER EICHLER, ANDREAS WALLRAFF, ETH Zurich — We investigate energy transfer in a system of three capacitively coupled transmon qubits. Qubits 1 and 2 interact with a coplanar-waveguide transmission line, through which the system is energized, and qubit 3 with a large decay rate resonator through which its Purcell-limited decay is measured. We study the power spectral density of microwave radiation emitted back into the transmission line and into the resonator in dependence on various system parameters and interpret the results.

Anton Potocnik
ETH Zurich

Date submitted: 11 Nov 2016 Electronic form version 1.4