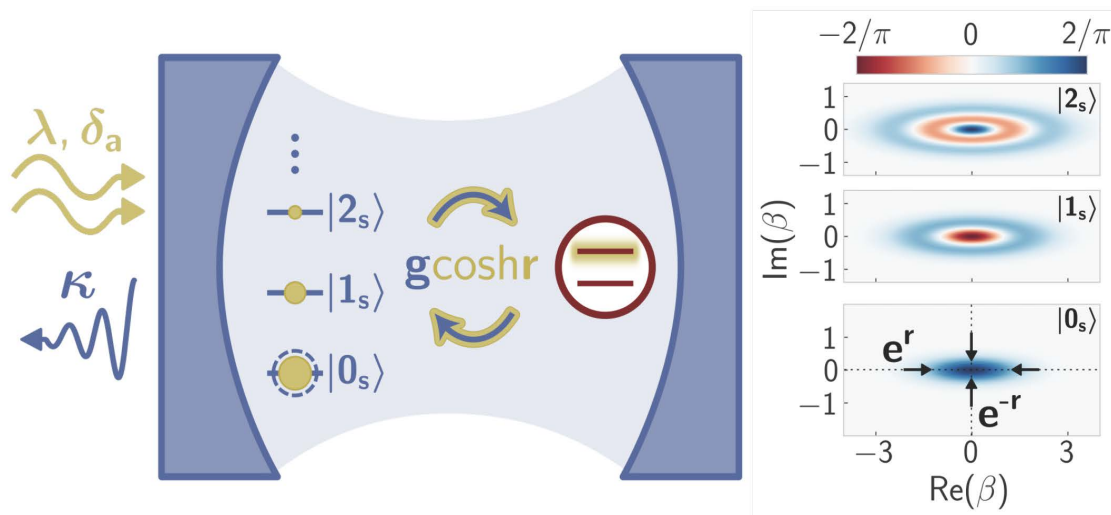


Dynamically enhancing qubit-photon interactions with anti-squeezing

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While the coupling of superconducting qubits to microwave oscillators can be engineered at will, hybrid quantum systems such as quantum dots or spin ensembles are still seeking stronger interactions. In a circuit-QED experiment, we demonstrate how squeezing an oscillator can boost its coupling to a qubit, with applications ranging from quantum technologies to the study of quantum phase transitions.

M. Villiers, W. C. Smith, A. Petrescu, A. Borgognoni, M. Delbecq, A. Sarlette, M. Mirrahimi, P. Campagne-Ibarcq, T. Kontos, and Z. Leghtas, "Dynamically enhancing qubit-photon interactions with anti-squeezing," arXiv:2212.04991