**QICK boards, Sara Sussman**

**Pre-reading:**

<https://journals.aps.org/prxquantum/abstract/10.1103/PRXQuantum.2.040202>

–

**Questions that could be used for final exam**

–

What is dispersive readout?

a) Reading out a resonator which is dispersively (off-resonantly) coupled to a qubit. This coupling entangles their quantum states.

b) Reading out a resonator which is dispersively (off-resonantly) coupled to a qubit. This coupling does not entangle their quantum states.

c) Reading out a resonator which is dispersively (resonantly) coupled to a qubit. This coupling entangles their quantum states.

d) Reading out a resonator which is dispersively (resonantly) coupled to a qubit. This coupling does not entangle their quantum states.

Which plot has the best readout fidelity?

a) a plot with totally separated IQ blobs

b) a plot with halfway separated IQ blobs

c) a plot with totally overlapping IQ blobs

d) a plot with almost totally separated IQ blobs

What are examples of active control in a quantum system?

a) feedback, feedforward and active reset

b) feedback

c) active reset

d) None of the above