

Abstract Submitted
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Measurement fidelity in the presence of coherent dynamics or dissipation JIAN-QIANG YOU, Fudan University & RIKEN, S. ASHHAB, FRANCO NORI, RIKEN & University of Michigan — We analyze the problem of a charge qubit probed by a quantum point contact when the measurement is concurrent with Hamiltonian-induced coherent dynamics or dissipation. This additional dynamics changes the state of the qubit before the measurement is completed. As a result, the measurement fidelity is reduced. We calculate the reduction in measurement fidelity in these cases. References: S. Ashhab, J. Q. You, and F. Nori, *New J. Phys.* 11, 083017 (2009); *Phys. Scr.* T137, 014005 (2009).

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