



Physikalisches Kolloquium
Einladung

Physics Colloquium
Invitation



Monday, 03 June 2019



Lecture Hall N24/H13, 16:15

Coffee and cookies will be served in front of the lecture hall from 16:00

Backaction of quantum measurements in superconducting circuits

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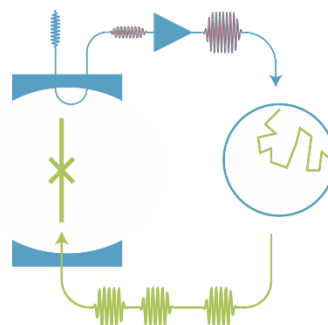
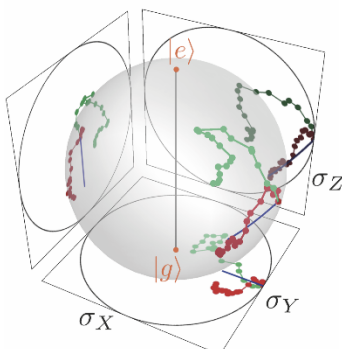
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GROUP



When a quantum system is measured, it collapses onto a state that corresponds to the measurement outcome. This measurement backaction takes subtle forms if the system first interacts with an ancillary quantum system, which is then measured. Observing these phenomena requires detectors, which are able to extract most of the information leaking out of a quantum system. Superconducting circuits now offer a testbed for these questions. In this talk, I will show how quantum measurement backaction can be observed in circuit quantum electrodynamics (c-QED) experiments. It will be shown that it is possible to follow a quantum state under a weak continuous measurement and use it to realize feedback.





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Host: Prof. Dr. Joachim Ankerhold, Institute of Complex Quantum Systems

Organisation: Prof. Dr. Fedor Jelezko, Institute of Quantum Optics, fedor.jelezko@uni-ulm.de, +49-731-50-23751