Contribution ID: 6

Quasiparticle Posioning, the Low Energy Excess and Stress Relaxation

Both superconducting qubits and low threshold calorimeters see unexpected bursts of energy in their superconductors which decrease in rate after cooldown, often called the "Low Energy Excess" (LEE) in calorimeters and associated with the "Quasiparticle Poisoning" problem in superconducting qubits. I will discuss the evidence linking these two phenomona, and show that the relaxation of glue on the surface of calorimeters or superconducting qubits may be responsable for some of these observations. The relaxation of thermally induced stress in metal films is an excellent candiate for the remainder of these events.

Primary author: ROMANI, Roger (UC Berkeley) Session Classification: Poster Session