## Abstract Submitted for the MAR09 Meeting of The American Physical Society

Design and construction of a millikelvin scanning tunneling microscopy system MARK GUBRUD, Physics Dept., University of Maryland, College Park, BARRY BARKER, Laboratory for Physical Sciences, MICHAEL DREYER, DAN SULLIVAN, University of Maryland, College Park — We are developing a scanning tunneling microscopy and spectroscopy system for work at millikelvin temperatures, intended for studies of superconductor, semiconductor, and other materials and systems of interest to quantum computing research. Our approach incorporates recent advances in this field as well as original insights and innovations to help achieve low noise and low effective operating temperatures.

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