



Co-sponsored with Department of Physics & Astronomy

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NIST

Boulder, Colorado

Role of Materials in Quantum Information Systems

An introductory review of quantum information will be given that illustrate the usefulness and of using quantum systems for computing. From this, two examples, ion traps and superconducting qubits, will be given where we have studied the relevant properties that need to be optimized. In particular, for the ion traps we observe that UHV cleaning and surface order helps reduce the ion heating rates that are deleterious to the operation qubit gates, while for superconductors we find that it is necessary to optimize surfaces and interfaces to improve the coherence times.

Host:
Prof. Peter Dowben
Department of
Physics & Astronomy

Thursday, February 12, 4:00 pm

136 Jorgensen Hall

3:30 pm—Refreshments

Jorgensen Hall 1st Floor Vending Area

Please Post