

Universal quantum computing with rare-earth ions

Wednesday, 30 October 2019 16:00 (20 minutes)

For certain computationally hard problems, quantum computers have a huge speedup advantage compared to their classical counterparts and their successful implementation may lead to drastic advances solid state physics, quantum chemistry and biomedicine, among others.

In this presentation I discuss why rare-earth compounds might be ideal candidates for solid state quantum computation. I address the challenge to realize long-lived, coherent quantum memories, and efficient ways to unprotect those qubits and realize high fidelity gates between them.

Position

Phd

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