

 ST. OLAF PHYSICS DEPARTMENT

COLLOQUIUM SERIES

TRAPPED ION QUANTUM COMPUTING AT QUANTINUUM

LUCAS SLETTEN '15

Quantum Computing Company

March 15

RNS 210

3:00PM

Quantum computers promise revolutionary capabilities from simulating large quantum systems to breaking widely adopted encryption strategies. The combination of such disruptive potential with the profoundly counter-intuitive reality of quantum mechanics has generated enormous hype and also spawned serious research efforts in both academic and industrial settings. In this talk, I will provide grounding amidst the quantomania by describing how quantum computers work and what one looks like realized with Quantinuum's trapped ion architecture (including the one in Golden Valley, MN). I will also touch on the challenges facing today's computers and the careers for both physicists and engineers required to solve these problems.



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