

Computing@PNNL SEMINAR

Quantum Computing's Killer Applications



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Quantum Computing Researcher

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Nathan Wiebe is a researcher in quantum computing who focuses on quantum methods for machine learning and simulation of physical systems. His work has provided the first quantum algorithms for deep learning, least squares fitting, quantum simulations using linear-combinations of unitaries, quantum Hamiltonian learning, near-optimal simulation of time-dependent physical systems, efficient Bayesian phase estimation and also has pioneered the use of particle filters for characterizing quantum devices as well as many other contributions ranging from the foundations of thermodynamics to adiabatic quantum computing and quantum chemistry simulation. He received his PhD in 2011 from the University of Calgary studying quantum computing before accepting a post-doctoral fellowship at the University of Waterloo and then finally joining Microsoft Research in 2013.