

Keynote Speech II: 4:15 pm - 5:00 pm

Dr. Colin Williams – D-Wave

In this talk I will describe D-Wave's approach to quantum computing including its operating principles, system architecture, evidence of quantumness, and some key lessons learned on how best to develop quantum computing technology. In particular, I will describe D-Wave's new "Vesuvius" 512-qubit quantum processor, show some preliminary performance data, and describe several examples of computational problems we have been able to map to our architecture. As our quantum processor is naturally well suited to solving discrete combinatorial optimization, machine learning and artificial intelligence problems the talk should be of broad interest to computer scientists, physicists, and engineers with interests in a wide range of application areas.

Biography ★ Dr. Colin Williams

Dr. Colin P. Williams - D-Wave Systems Inc. Colin is Director of Business Development & Strategic Partnerships at D-Wave Systems Inc. - the World's first quantum computer company - where he works with corporate and government clients to infuse D-Wave quantum computing technology into their products and services.

Colin holds a Ph.D. in artificial intelligence from the University of Edinburgh, a M.Sc. and D.I.C. in atmospheric physics and dynamics from Imperial College, University of London, and a B.Sc. (with Hons.) in mathematical physics from the University of Nottingham. He was formerly a research assistant in general relativity & quantum cosmology to Prof. Stephen W. Hawking, at the University of Cambridge, a research scientist at Xerox PARC, and an Associate Professor of Computer Science at Stanford University.

