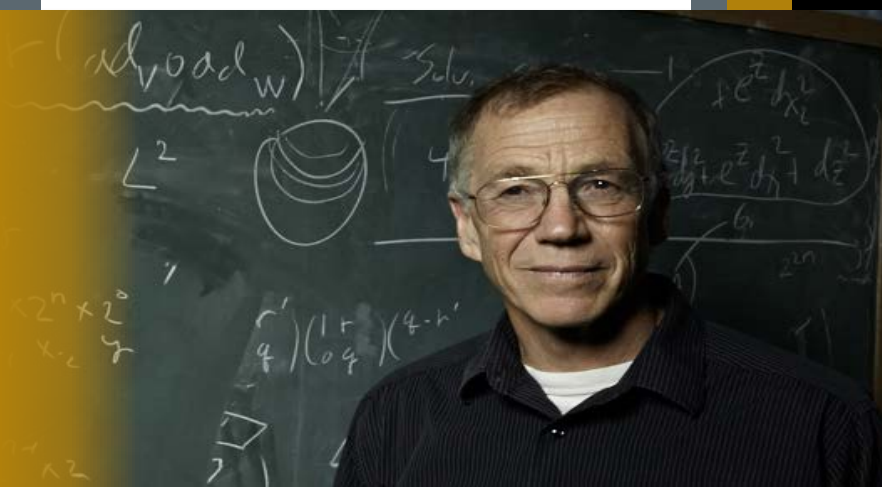


## MICHAEL FREEDMAN

Director, Microsoft Station Q  
at University of California, Santa  
Barbara



# BUILDING A QUANTUM COMPUTER 101

Friday, May 26, 2017

11 a.m.-12 p.m.

Burton D. Morgan Center for Entrepreneurship, Room 121

Open to the public

**About the presentation:** Michael Freeman will share his perspective on how we should approach building a quantum computer, starting with the mathematical roots and moving through the physics to concrete engineering and materials growth challenges on which success will hinge. He will then discuss a new, enhanced, collaboration between Microsoft and Prof. Mike Manfra's team at Purdue.

**About the speaker:** Michael Freedman is director of Station Q, Microsoft's Project on quantum physics and quantum computation located on the UCSB campus. The project is a collaborative effort between Microsoft and academia directed towards exploring the mathematical theory and physical foundations for quantum computing.

Freedman joined Microsoft in 1997 as a Fields Medal-winning mathematician whose accomplishments included a proof of the 4-dimensional Poincare conjecture, the discovery (with Donaldson and Kirby) of exotic smooth structures on Euclidian 4-space, applications of minimal surfaces to topology, and estimates for the stored energy in magnetic fields. He has received numerous awards and honors: election to the National Academy of Science and the American Academy of Arts and Sciences, the Veblen prize, a MacArthur Fellowship and the National Medal of Science. His work since joining Microsoft has been primarily on the interface of quantum computation, solid state physics, and quantum topology.



Microsoft

**For more information:** Contact Maria Longoria-Littleton at (765) 494-0015 or [mlongori@purdue.edu](mailto:mlongori@purdue.edu).

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