PHYSICS AND ASTRONOMY COLLOQUIM

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Building a quantum computer using silicon quantum dots

It has been shown theoretically that by exploiting the nature of quantum physics, quantum computers can solve certain computational problems much more efficiently than classical computers can. To build a quantum computer that is large enough to provide such an advantage, fundamental physics advances are required. This talk will discuss the challenges involved in building a large-scale quantum computer as well as progress that we have made in developing a quantum computer using quantum dots in silicon/silicon-germanium heterostructures.



THURSDAY, OCTOBER 23, 2014 | 4:00 PM | HAWKING AUDITORIUM

