

Quantum Summit

Wednesday, 27 January 2016 • 8:00AM - 7:00PM

8:00AM Continental Breakfast

Session I • Chair: Gil Refael • IQIM, Caltech

9:00AM **What Do We Do with a Quantum Computer?**

Krysta Svore • Senior Researcher, QuArC, Microsoft

9:45AM **Topological Quantum Computing: Progress & Opportunities**

Jason Alicea • Professor of Theoretical Physics, Caltech

10:30AM Break

Session II • Panel Discussion

11:00AM Jennifer Ouellette • Senior Science Editor, Gizmodo.com [Moderator]

A Conversation on the Future of Quantum Computers

Ray Beausoleil • HP Laboratories Charles Bennett • IBM

Parsa Bonderson • Microsoft Jim Clarke • Intel

Hartmut Neven • Google Raymond Laflamme • Institute for Quantum Computing

12:30PM Lunch

Session III • Chair: Oskar Painter • IQIM, Caltech

2:00PM **Towards Feynman's Dream:
Quantum Simulation with Superconducting Qubits**

John Martinis • Research Scientist, Google

Session IV • Chair: Manuel Endres • IQIM, Caltech

3:00pm **The Sound of Silence: Acoustic Quantum Transducers**
Oskar Painter • John G. Braun Professor of Applied Physics, Caltech

3:45PM **Entangled Trapped Ions**
David Wineland • Nobel Laureate, NIST

4:30PM **Break**

5:00PM **Screening**
The PHD Movie 2: Still In Grad School

< Graphical depiction of a holographic code, which models the emergence of spacetime from quantum entanglement.