

The Quantum Summit 2018 - Guide

If you are like me, then you are very excited about the upcoming Quantum Summit, co-located at the AI Summit in San Francisco.

Not only is this a great opportunity to network with a large ecosystem of vendors, providers and experts. But also to discuss and debate the state and future of Quantum Computing with likeminded people.

Conferences can be confusing and exhausting, though, and before you know it is over and you're in a cab on the way to the airport onwards to new adventures.

To help maximize your time at The Quantum Summit, I put together this guide based on my own preparations.

Enjoy, and please share any feedback or corrections with me!

Pro tip: Download and use the mobile app to put together your customer calendar and reminder, look up people and connect with them, engage on social media.

Note: All information in this guide is from public sources and accessible via Google.

When?

September 19, 2018
starting at 9 pm

Where?

[The Palace of the Arts, San Francisco](#)



Full brochure

[Is here!](#)

Website

[The Quantum Summit](#)

Apps

[Apple](#) or [Android](#)

Twitter

Handle: [@Business_AI](#)

Hashtags: [#aisummit](#)
[#quantumcomputing](#)

The full schedule - subject to change, I will attempt to update when possible


DRAFT AGENDA

<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>9:25 Chair's Opening Remarks Keith Kirkpatrick, Principal Analyst, Tractica</p> </div>  </div>	<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>2:05 Google's perspective on quantum computing and how to avoid the hype Hratch Achadjian, Head of Business Development, Quantum Computing, Google</p> </div>  </div>
<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>9:30 The Coming Quantum Winter William Hurley, Founder and CEO, Strangeworks</p> </div>  </div>	<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>2:35 Quantum Innovation Laboratory - Quantum Present and Future Na Young Kim, Associate Professor, University of Waterloo</p> </div>  </div>
<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>10:00 Quantum Computing and IBM Q: From Quantum Ready To Quantum Advantage Sulent Kurdi, Senior Manager, Quantum Engineering, IBM Research</p> </div>  </div>	<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>3:00 Quantum and The Future of Space Systems Steve Adachi, LM Fellow, Lockheed Martin</p> </div>  </div>
<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>10:30 Panel: How Should Enterprises Prepare for the Quantum Revolution? Moderator William Hurley, Founder and CEO, Strangeworks Panellists Hratch Achadjian, Head of Business Development, Quantum Computing, Google Keith Weiss, Managing Director, Morgan Stanley David Bell, Director, USRA Research Institute for Advanced Computer Science</p> </div>  </div>	<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>3:30 Quantum AI Lab: Competing for quantum supremacy David Bell, Director, USRA Research Institute for Advanced Computer Science Chief Technologist, NASA Academic Mission Services</p> </div>  </div>
<p>11:10 Refreshments & Networking Break </p> <p><i>Served between 3:30 and 4:15</i></p>	
<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>11:55 Classical Adiabatic Computing, part of the Reincarnation of Analog Computing Eli Yablonovitch, Professor, UC Berkeley</p> </div>  </div>	<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>4:30 Enterprise Applications and Market Forecasts for Quantum Computing Keith Kirkpatrick, Principal Analyst, Tractica</p> </div>  </div>
<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>12:30 Quantum Computing – Weird Science or the Next Computing Revolution? Keith Weiss, Managing Director, Morgan Stanley</p> </div>  </div>	<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>5:00 The Landscape of Quantum Algorithms K. Birgitta Whaley, Director, Berkeley Quantum Information and Computation Center Professor of Chemistry</p> </div>  </div>
<div style="background-color: #f9f9f9; padding: 5px; border-radius: 5px; display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>1:00 Agile Quantum-Safe Security: Start Protecting Now Scott Tötze, CEO & Co-founder, ISARA Corporation</p> </div>  </div>	<p>5:30 <i>Close of Session</i></p>
<p>1:25 Lunch & Refreshments <i>Served between 12:30 and 2:30</i> </p>	<p>6:10 Drinks Reception Hosted by BCG Digital Ventures</p>

Opening remarks - Keith Kirkpatrick

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Hashtags: #aisummit #quantumcomputing

Keith is an accomplished business owner, writer, researcher, analyst and project manager with more than 20 years of relevant work experience. He spent the first 8 years of my career researching, writing and editing primarily on finance and technology topics as a journalist, and have leveraged those skills to research, write and edit research reports, consult for external clients and develop profitable commercial conferences covering a wide variety of financial and technology topics.

The Coming Quantum Winter William Hurley, Founder and CEO, Strangeworks

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William Hurley, commonly known as whurley, is an American entrepreneur and the founder of Chaotic Moon Studios, Honest Dollar, and Equals: The Global Partnership for Gender Equality in the Digital Age. He is an open source advocate and systems theorist.

In March 2018 at SXSW, whurley launched Strangeworks, a startup focused on quantum computing software; whurley is the author of Quantum Computing for Babies. Prior to the launch of Strangeworks, they raised \$4 million in a seed round led by Lightspeed Venture Partners. The company designs and sells software developer tools and a systems management platform for clients in the aerospace, energy, finance and pharmaceutical industries.

Quantum Computing and IBM Q: From Quantum Ready To Quantum Advantage Bulent Kurdi, Senior Manager, Quantum Engineering, IBM Research

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Bulent N. Kurdi currently works at the Science and Technology, IBM Almaden Research Center in San Jose CA. Bulent does research in Electrical Engineering, Materials Science and Optics.

Panel: How Should Enterprises Prepare for the Quantum Revolution? Moderator

- William Hurley, Founder and CEO, Strangeworks

Panellists:

- Hratch Achadjian, Head of Business Development, Quantum Computing, Google
- Keith Weiss, Managing Director, Morgan Stanley
- David Bell, Director, USRA Research Institute for Advanced Computer Science

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My focus is helping CEO/CTOs, senior business and technology leaders to realize their vision with the best Google has to offer. Technology has the potential to address the biggest challenges, long-term bold investments in transformative technologies enables these opportunities.

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Dr. David Bell is Director of the USRA Research Institute for Advanced Computer Science (RIACS), and is the USRA Program Manager for the Quantum Artificial Intelligence Lab collaboration between USRA, Google and NASA's Ames Research Center. David also serves as the Chief Technologist of the NASA Academic Mission Services contract, focusing on enabling R&D collaborations between universities, industry and NASA in a range of domains including quantum computing, machine learning, autonomous systems, nanotechnology, and biotechnology. Prior to working with USRA, David worked for ten years as a member of the research staff at the Xerox Palo Alto Research Center, in the Scientific & Engineering Reasoning Area of the Systems and Practices Lab. At Xerox, he conducted multi-disciplinary research with computer scientists developing novel artificial intelligence software and social scientists who studied work practices of organizations. David also held an appointment at MIT where he led a research program in the Center for Innovation in Product Development. In this capacity, David led a research program involving faculty and students at the MIT Sloan School of Management, the MIT School of Engineering, and the Stanford Management Science & Engineering and Design Research programs. Partner organizations included the U.S. Navy, ITT Industries, IBM, General Motors, Ford and others. David received his Ph.D. from Cornell University with a dissertation on the dynamics of product development processes, is co-inventor on multiple patents, and author of around 30 papers.

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LinkedIn: [Keith Weiss](#)
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By bringing together strategic insights on how technology evolves with deep understanding of software business models, Keith leads the Morgan Stanley Software research team in crafting actionable insights for clients.

With 17 years of experience working both in sell-side equity research and the CFO's office of a publicly traded software company, Keith brings a differentiated view to coverage of names like Microsoft, Oracle, Salesforce.com, VMware, Adobe, Intuit, Red Hat, ServiceNow, Workday, Palo Alto Networks, Symantec, Check Point, Citrix, Autodesk, Splunk, Tableau and Qlik.

Classical Adiabatic Computing, part of the Reincarnation of Analog Computing Eli Yablonovitch, Professor, UC Berkeley

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Eli Yablonovitch is an American physicist and engineer who, along with Sajeew founded the field of photonic crystals in 1987. He and his team were the first to create a 3-dimensional structure that exhibited a full photonic bandgap, which has been named Yablonovite. In addition to pioneering photonic crystals, he was the first to recognize that a strained quantum-well laser has a significantly reduced threshold current compared to its unstrained counterpart. This is now employed in the majority of semiconductor lasers fabricated throughout the world. His seminal paper reporting inhibited spontaneous emission in photonic crystals is among the most highly cited papers in physics and engineering.

Quantum Computing – Weird Science or the Next Computing Revolution? Keith Weiss, Managing Director, Morgan Stanley

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Agile Quantum-Safe Security: Start Protecting Now Scott Totzke, CEO & Co-founder, ISARA Corporation

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As a seasoned information technology executive with international experience in telecommunications, security and privacy, I have a passion for ensuring that technology is used as a strategic enabler for my company and my customers. I am an empowering leader with a proven track record for building high performance organizations that are instilled with a culture of ownership, accountability and delivery. I am an enthusiastic leader constantly looking for ways to improve both technical and organizational excellence within my teams

and have a history of consistently delivering projects on time and on budget.

Throughout the last decade, I have worked to advance RIM's approach to product security. As the company has grown and the product portfolio has diversified, we have maintained a consistently high standard for security. My team established the fundamental processes that have enabled security to be RIM's single biggest differentiator in the mobile smartphone and tablet markets. A confident and effective public speaker, I frequently represent RIM's perspectives on security and privacy in various industry, lobbying, legal and public relations related capacities. Much of what my team has accomplished has been firsts within the mobile industry as we continue to push the boundaries for security and privacy in the mobile context.

Google's perspective on quantum computing and how to avoid the hype
Hratch Achadjian, Head of Business Development, Quantum Computing, Google

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Hashtags: #aisummit #quantumcomputing

My focus is helping CEO/CTOs, senior business and technology leaders to realize their vision with the best Google has to offer. Technology has the potential to address the biggest challenges, long-term bold investments in transformative technologies enables these opportunities.

Quantum Innovation Laboratory - Quantum Present and Future
Na Young Kim, Associate Professor, University of Waterloo

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Hashtags: #aisummit #quantumcomputing

Na Young Kim leads Quantum Innovation (QulN) laboratory, aiming to build large-scale quantum processors based on novel materials and advanced technologies. Two kick-off projects are under way: the semiconductor quantum processors project establishes controllable optical and electrical domains, where we learn the insights of exotic materials and fundamental nature of symmetries; (2) the project of the multi-functional classical and quantum device arrays establishes a planar architecture comprising of nano-scale devices with electrical, optical, thermal and mechanical functionality.

Prior to joining IQC in 2016, Kim was at Apple Inc., working on the development of small display products, where she got to experience delivering beloved products to world-wide consumers. She received a BS in Physics from Seoul National University and pursued her graduate studies exploring mesoscopic transport properties in low-dimensional nanostructures in the Department of Applied Physics at Stanford University. During her postgraduate research, she expanded her scope to the fields of quantum optics and nanophotonics, working on several experimental and theoretical projects in collaborations with graduate

students, postdoctoral scholars and collaborators.

Quantum and The Future of Space Systems Steve Adachi, LM Fellow, Lockheed Martin

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Steve Adachi of Lockheed Martin Corporation, Bethesda with expertise in Applied Mathematics, Artificial Intelligence, Quantum Computing.

Quantum AI Lab: Competing for quantum supremacy David Bell, Director, USRA Research Institute for Advanced Computer Science Chief Technologist, NASA Academic Mission Services

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Dr. David Bell is Director of the USRA Research Institute for Advanced Computer Science (RIACS), and is the USRA Program Manager for the Quantum Artificial Intelligence Lab collaboration between USRA, Google and NASA's Ames Research Center. David also serves as the Chief Technologist of the NASA Academic Mission Services contract, focusing on enabling R&D collaborations between universities, industry and NASA in a range of domains including quantum computing, machine learning, autonomous systems, nanotechnology, and biotechnology. Prior to working with USRA, David worked for ten years as a member of the research staff at the Xerox Palo Alto Research Center, in the Scientific & Engineering Reasoning Area of the Systems and Practices Lab. At Xerox, he conducted multi-disciplinary research with computer scientists developing novel artificial intelligence software and social scientists who studied work practices of organizations. David also held an appointment at MIT where he led a research program in the Center for Innovation in Product Development. In this capacity, David led a research program involving faculty and students at the MIT Sloan School of Management, the MIT School of Engineering, and the Stanford Management Science & Engineering and Design Research programs. Partner organizations included the U.S. Navy, ITT Industries, IBM, General Motors, Ford and others. David received his Ph.D. from Cornell University with a dissertation on the dynamics of product development processes, is co-inventor on multiple patents, and author of around 30 papers.

Enterprise Applications and Market Forecasts for Quantum Computing Keith Kirkpatrick, Principal Analyst, Tractica

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The Landscape of Quantum Algorithms K. Birgitta Whaley Director, Berkeley Quantum Information and Computation Center Professor of Chemistry

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Professor Whaley's research is at the interfaces of chemistry with physics and with biology. Her work is broadly focused on quantum information and quantum computation, control and simulation of complex quantum systems, and quantum effects in biological systems. Quantum information processing employs superposition, entanglement, and probabilistic measurement to encode and manipulate information in very different ways from the classical information processing underlying current electronic technology. Theoretical research of Professor Whaley's group in this area is focused in quantum control, quantum information and quantum measurement, analysis and simulation of open quantum systems, macroscopic quantum states and quantum metrology. Specific topics of current interest include quantum feedback control, quantum reservoir engineering, topological quantum computation, and analysis of macroscopic quantum superpositions in interacting many-body systems. Such superposition states, dramatically illustrated by Schrodinger's famous cat paradox, offer unprecedented opportunities for precision measurements. Professor Whaley's recent research in quantum biology seeks to characterize and understand the role of quantum dynamical effects in biological systems, with a perspective that combines physical intuition and detailed quantum simulation with insights from various branches of quantum science – quantum physics, molecular quantum mechanics and quantum information.

Drinks Reception Hosted by BCG Digital Ventures

Jay Venkat

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Roy Grossberg

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BCG Digital Ventures is a corporate investment and incubation firm. We invent, build and invest in startups with the world's most influential companies. We share risk and invest alongside our corporate and startup partners via a range of collaborative options.

Founded in 2014, we have major Innovation and Investment Centers in Manhattan Beach, Berlin, London, Sydney, San Francisco and New York, as well as DV Hatches in Silicon Valley, Seattle and Mexico City, with more locations opening in the coming quarters.

General Disclosures

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