Q-CTRL Welcomes Dave Kielpinski as Principal Quantum Control Scientist to Accelerate Quantum Computing Innovation

Quantum tech pioneer brings 25 years of experience in quantum physics, machine learning and two Guinness World Records to quantum infrastructure software leader

SYDNEY, AUSTRALIA, May 9, 2023 /EINPresswire.com/ -- Q-CTRL, a global leader in developing useful quantum technologies through quantum control infrastructure software, announced the addition of industry trailblazer Dave Kielpinski as Principal Quantum Control Scientist.

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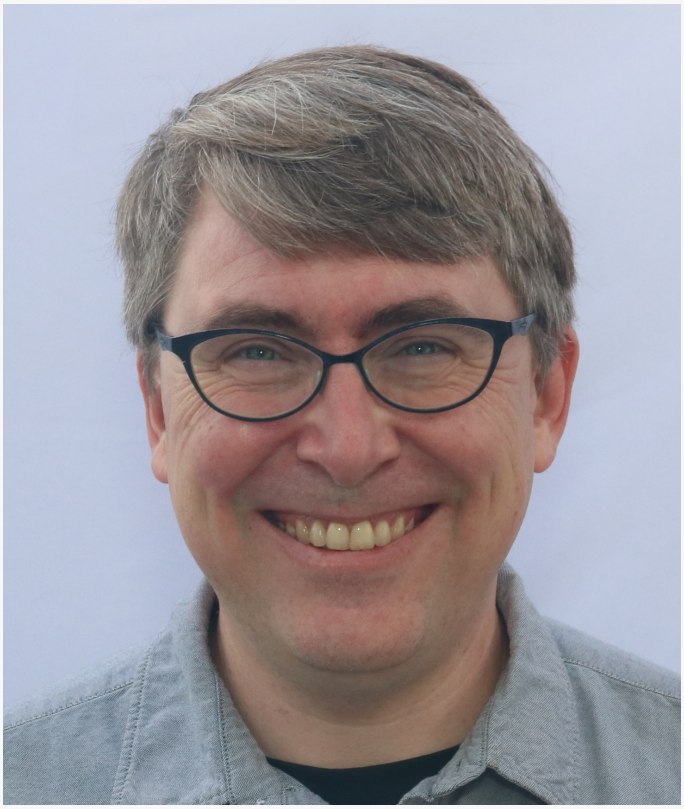
>
> *Michael Hush, Chief Scientific Officer of Q-CTRL*

Kielpinski has spent the last 25 years contributing to and leading research projects in uncharted territories of science. In 2002, he authored a foundational paper for quantum computing, which laid out the framework for the architecture of large scale ion trap quantum computers. This architecture arose from the first experimental demonstrations of trapped-ion quantum computation by Kielpinski and co-workers in the group of David Wineland. This work was foundational to the efforts now undertaken by ion trap quantum computing companies such as Quantinuum and IonQ.

"Bringing a quantum computing trailblazer like Dave onboard is a major addition for our team," said Q-CTRL Chief Scientific Officer Michael Hush. "His research laid the foundations of modern quantum computing with trapped ions. Plus his industry experience in integrated photonics and machine learning opens new opportunities for us to demonstrate our capabilities."

In his new role, Kielpinski will apply his scientific and research expertise to solving the toughest technical challenges facing the quantum industry and shape future capabilities in Q-CTRL's AI-powered quantum infrastructure software suite. His background and expertise will help expand the range of hardware platforms supported by Q-CTRL's software, building on the company's

globally unique track record of validation on real quantum computers.



Recognizing Q-CTRL's major role as a critical enabler in the quantum tech ecosystem was the catalyst for Kielpinski's decision to join the company. Q-CTRL develops state-of-the-art solutions to make quantum technology useful across key industries like financial services, pharmaceutical development and logistics optimization. As a machine learning scientist, Kielpinski has also developed AI algorithms to deliver transformational business value in early-stage drug discovery, next-generation optical communications and automated cybersecurity threat detection.

This alignment of skills and expertise could not be overlooked. Plus, Kielpinski has known and collaborated with several Q-CTRL leaders for decades, including CEO Michael Biercuk, Chief Scientific Officer Michael Hush, and Head of Quantum Sensing Russell Anderson.

"I am excited to join the Q-CTRL team because the future is bright for the company and the entire quantum tech industry. We are going to see a major change in how quantum is perceived by the wider community as quantum hardware takes over certain key computing tasks," said Kielpinski. "Exactly when that happens will be down to both hardware improvements and, just as importantly, the ability to extract useful performance from that hardware through software. The second part is where Q-CTRL comes in."

Based in Brisbane, Kielpinski has witnessed the rapid growth of Australia's quantum community firsthand. Last week, the Australian Government released their first National Quantum Strategy, which sets a long-term plan for Australia to reach its full potential, along with meaningful support from the public sector. According to Australia's national science agency, CSIRO, an analysis forecasts quantum technology will "reach over two billion USD and generate more than 16,000 high-value jobs in Australia by 2040."

To learn more about Q-CTRL, please visit: q-ctrl.com.

About Q-CTRL
Quantum computers offer immense benefits to enterprises facing complex challenges, but hardware errors and instability have limited their potential. Q-CTRL addresses this issue with its unique quantum infrastructure software technology that enhances quantum hardware utility

and performance. Q-CTRL offers software to users from all backgrounds, including both R&D professionals and end users. This includes world-leading technologies to reduce errors in quantum hardware, and AI automation tools to speed up the R&D process for hardware providers. Q-CTRL has also developed Black Opal, an edtech platform that enables users to quickly learn quantum computing.

Founded by Michael J. Biercuk in 2017, Q-CTRL has pioneered the quantum infrastructure software segment, and has become the leading product-focused software company in the broader quantum sector. In 2022, Q-CTRL augmented its product leadership, bringing in deeptech executive Aravind Ratnam as Chief Strategy Officer and Silicon Valley veteran Alex Shih as Head of Product, to guide a team of world class engineers and product specialists.

Q-CTRL has been an inaugural member of the IBM Quantum Startup network since 2018, and recently announced partnerships with end-users Xerox PARC, Capgemini, and Transport for NSW. The company has international headquarters in Sydney, Los Angeles, and Berlin.

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