PRESS RELEASE
Zurich, Switzerland
Information can be disclosed as of March 3rd, 2023

Zurich Instruments provides quantum computing control systems for Atlantic Quantum

Zurich Instruments will provide quantum computing control systems (QCCS) for Atlantic Quantum as they build a quantum computer based on superconducting quantum bits (qubits). In an initial project, Atlantic Quantum will leverage Zurich Instruments' QCCS, a scalable system solution encompassing both electronics and software for quantum processor control. The control system is a key component of a quantum computer linking the sensitive qubits with the higher-level software stack.

On-site installation and operation will be supported locally by Zurich Instruments' Boston-based team. "Zurich Instruments is a great fit for an ambitious quantum start-up like us. Our mutual goal of advancing the hardware infrastructure required for quantum computers to tackle real-world challenges further strengthens this partnership." says Dr. Bharath Kannan, co-founder and CEO of Atlantic Quantum.

Atlantic Quantum follows a philosophy of advancing qubit quality metrics prior to scaling qubit numbers. Employing new types of noise-protected qubits, the company expects to achieve longer coherence times than with conventional approaches. This aspiration reflects on the requirements of the control system, as its specifications and noise performance must allow the quantum devices to operate at their best possible performance.

In particular, the control channels of the QCCS, which are needed to transmit quantum computing algorithms to the quantum processor, fit well to the fluxonium qubit type employed by Atlantic Quantum. "While the QCCS offers the flexibility we need to test our current-generation devices, looking ahead we find that Zurich Instruments has a credible plan for scaling up their control system to quantum processors with hundreds of qubits" says Dr. Simon Gustavsson, co-founder and CTO of Atlantic Quantum.

The two companies each operate on both sides of the Atlantic, which is a valuable asset for practical collaboration. Zurich Instruments has been partners with Chalmers University of Technology in Gothenburg in the framework of the OpenSuperQ project since 2018. Atlantic Quantum maintains close links with the European quantum computing ecosystem through its European operations in Gothenburg, Sweden with roots at Chalmers. The long exposure has helped to build the trust in the technical expertise and alignment of the companies' roadmaps. "I'm happy to count on a strong team in our US office, ready to dive deep into technical challenges with the world-leading quantum computing experts at AQ. This collaboration will deepen our understanding

Zurich Instruments AG
Technoparkstrasse 1
8005 Zürich
Switzerland

Phone +41 44 515 04 10
Fax +41 44 515 04 19
Email info@zhinst.com
Web www.zhinst.com

of the customer's needs and help us improve our products" says Vikrant Mahajan, VP Sales and Operations at Zurich Instruments USA.

About Atlantic Quantum

Atlantic Quantum believes that fault-tolerant quantum hardware is the key to making progress in quantum computing. We take on this uniquely tough challenge with a team of deep experts in the field, anchored in Cambridge and Gothenburg to reflect our MIT and Chalmers roots. Our combined U.S. and EU presence helps attract talent, investments, and partnerships to accelerate the development and commercialization of scalable quantum computing. We offer flexible work in a fast-moving start-up environment, with strong ties to world-class academic research. Find us online at: http://www.atlantic-quantum.com

About Zurich Instruments

Zurich Instruments makes cutting-edge instrumentation for scientists and technologists in advanced laboratories who are passionate about phenomena that are often notoriously difficult to measure. The company's core offering includes lock-in amplifiers, impedance analyzers, arbitrary waveform generators, and the first commercially available quantum computing control system. Zurich Instruments brings innovation to scientific instrumentation and quantum control systems in the medium-frequency (MF), ultra-high-frequency (UHF) and now also super-high-frequency (SHF) ranges by combining frequency- and time-domain tools within each of its products. This approach reduces the complexity of laboratory setups and unlocks new measurement strategies. To learn more about Zurich Instruments visit www.zhinst.com

Press contact

Zurich Instruments USA, Inc.
Vikrant Mahajan, VP Sales and Operations
400 5th Avenue
Suite 115
Waltham, MA 02451
USA
vikrant.mahajan@zhinst.com

Atlantic Quantum Corp.
750 Main Street
Cambridge, MA 02139
USA
Press@atlantic-quantum.com