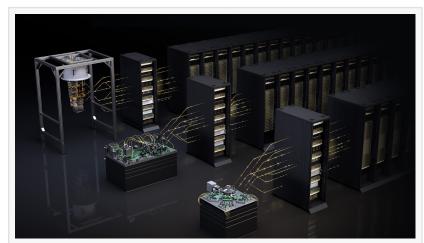


Alice & Bob Accelerates Fault-Tolerant Quantum Computing with NVIDIA NVQLink

New open-source NVIDIA NVQLink architecture integrates GPUs into real-time quantum feedback loops – a major milestone for FTQC hardware and software maturity.

WASHINGTON, DC, UNITED STATES, October 28, 2025 /EINPresswire.com/ -- Alice & Bob, a global leader in the race for fault-tolerant quantum computing, today announced its collaboration on NVIDIA NVQLink, launched at GTC Washington, D.C. NVQLink is NVIDIA's new open architecture that integrates quantum processing units (QPUs) with classical GPUs, delivering real-time



NVQLink allows researchers to more easily build hybrid quantum-classical systems, accelerating nextgeneration applications in chemistry and materials science.

orchestration for fault-tolerant quantum computing (FTQC) applications.

NVQLink is designed to accelerate the development of logical qubits by enabling GPU



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Tim Costa, General Manager for Quantum at NVIDIA

compilation, live decoding, and dynamic calibration within a unified quantum-classical workflow. The platform supports diverse qubit modalities and provides deterministic, low-latency communication between control electronics and NVIDIA GPUs. NVQLink also marks the ready availability of accelerated computing to perform tasks that have previously remained limited to dedicated hardware such as ASICs or FPGAs.

"We are thrilled to see NVIDIA'S NVQLink addressing the layers of the FTQC stack we've long considered critical: logical orchestration, decoding, and live calibration," said

Jérémie Guillaud, VP of Firmware at Alice & Bob. "This launch is a clear signal that fault-tolerant quantum computers, such as Alice & Bob's QPUs, are about to reach industrial maturity."

This collaboration builds on the existing relationship between the two companies' quantum software teams, from which products such as Dynamiqs – Alice & Bob's high-performance QPU simulation tool powered by NVIDIA accelerated computing and integrated with the NVIDIA CUDA-Q platform – were developed. NVQLink enables better FTQC solutions, bringing the timelines for useful quantum computing forward.

"Demand for hybrid quantum-classical systems is growing as researchers and developers seek tighter integration, lower latency, and a unified programming model to turn experimental qubits into practical, scalable compute for real-world workloads," said Tim Costa, General



Manager for Quantum at NVIDIA. "Alice & Bob are working with NVQLink and the CUDA-Q platform to provide the accelerated pathway needed to couple QPUs with GPUs and advance quantum computing capabilities."

About Alice & Bob

Alice & Bob is a quantum computing company based in Paris and Boston whose goal is to create the first universal, fault-tolerant quantum computer. Founded in 2020, Alice & Bob has raised €130 million in funding, hired over 150 employees and demonstrated experimental results surpassing those of technology giants such as Google or IBM.

Advised by Nobel Prize-winning researchers, Alice & Bob specializes in cat qubits, a technology developed by the company's founders and later adopted by Amazon. Demonstrating the power of its cat architecture, Alice & Bob recently showed that it could reduce the hardware requirements for building a useful large-scale quantum computer by up to 200 times compared with competing approaches. Follow Alice & Bob on LinkedIn, X or YouTube, visit their website www.alice-bob.com, or join The Cat Tree on Slack to learn more.

Christian Balzora
HKA Marketing Communications christian@hkamarcom.com

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