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HIGHLIGHTING NEWS

ORATOMIC LAUNCHES WITH BREAKTHROUGH APPROACH TO SCALABLE QUANTUM COMPUTING

Quantum computing may be closer to practical reality than previously thought. Newly launched startup Oratomic has unveiled a bold roadmap to build utility-scale, fault-tolerant quantum computers by the end of the decade, supported by a major theoretical breakthrough developed in collaboration with Caltech.

At the core of Oratomic's announcement is a striking claim: large-scale, useful quantum computation may require on the order of 10,000 atomic qubits—far fewer than earlier estimates that often ranged into the millions. This reduction stems from advances in error correction and system design, suggesting that the path to scalable quantum machines could be significantly shorter than anticipated.

Oratomic's approach is based on neutral-atom quantum systems, which use individually controlled atoms as qubits. These systems offer key advantages, including high qubit uniformity, flexible reconfiguration, and the ability to implement complex connectivity patterns essential for efficient error correction. By combining these hardware capabilities with improved fault-tolerant architectures, the company aims to deliver machines capable of solving meaningful problems in fields such as chemistry, materials science, and artificial intelligence.

The implications extend beyond scientific discovery. A quantum computer operating at this scale could execute algorithms like Shor's algorithm, which has the potential to break widely used cryptographic systems. As a result, Oratomic's progress reinforces the urgency of developing and adopting post-quantum cryptography standards.

The founding team brings together expertise from leading institutions and technology companies, including Caltech, Harvard, Google, and Amazon, positioning the company at the intersection of cutting-edge research and industrial execution.

By challenging long-held assumptions about the scale required for useful quantum computation, Oratomic's launch signals a potential inflection point for the field—one where practical, real-world quantum advantage may arrive sooner than expected.

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NVIDIA QUANTUM DAY BRINGS INDUSTRY LEADERS TOGETHER AND HIGHLIGHTS HYBRID QUANTUM–AI WORKFLOWS

NVIDIA's Quantum Day, which will be held on April 14, 2026, offers a practical look at how quantum computing is being integrated into today's computing stack, with a strong emphasis on what developers and researchers can already do using hybrid quantum–classical systems.

A central focus of the event is how NVIDIA's CUDA-Q platform enables users to design, simulate, and run quantum algorithms alongside GPU-accelerated workloads. Attendees gain concrete insight into workflows such as quantum circuit simulation at scale, AI-assisted calibration of quantum devices, and hybrid algorithms that offload optimization tasks to classical hardware while reserving quantum processors for core computations.

One of the key presenters is Dr. Krysta Svore (NVIDIA), who brings deep experience from Microsoft's quantum program. Her sessions focus on how to bridge the gap between near-term noisy devices and future fault-tolerant systems, including practical strategies for building useful applications today.

From the broader ecosystem, Ilyas Khan (Quantinuum) stands out as a major external voice. As CEO of one of the leading full-stack quantum companies, he provides perspective on commercial quantum computing, enterprise use cases, and the path to scalable, revenue-generating applications. His presence highlights how hardware, software, and business models are evolving together.

Additional contributors from companies such as IQM and other quantum startups reinforce the message that quantum computing is no longer siloed. Instead, it is increasingly tied to AI, high-performance computing, and cloud infrastructure.

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