

Leading diamond quantum computing company releases first software supporting NVIDIA CUDA Quantum

CANBERRA, AUSTRALIA, March 21, 2023 /EINPresswire.com/ -- Quantum Brilliance, the leading developer of quantum computing products and solutions, has released a new version of its open-source Qristal software able to compile quantum programs written in CUDA Quantum, NVIDIA's newly announced open-source programming model.



The integration of NVIDIA CUDA Quantum within Qristal brings hybrid quantum computing with diamond-based quantum hardware one step closer to reality"

*Timothy Costa, Director of
HPC and Quantum
Computing at NVIDIA*

Announced today at NVIDIA GTC, a global AI conference, Quantum Brilliance's new release of Qristal heralds a major step forward in hybrid quantum-classical computing.

"This new version of Qristal is the first full-stack quantum software to support CUDA Quantum," said Pat Scott, Software Lead at Quantum Brilliance. "Working together with NVIDIA, we have been able to place the powerful new CUDA Quantum framework at the heart of the quantum software landscape, right from the moment of its first release. The introduction of CUDA Quantum is a

transformative step in the evolution of quantum computing, as it offers extensive tools for tightly integrating high-performance classical algorithms with cutting-edge quantum ones."

"By providing the capability in Qristal to compile quantum programs written in CUDA Quantum, we have made it possible to build quantum software that runs seamlessly across NVIDIA graphics processing units (GPUs), central processing units (CPUs) and quantum processing units (QPUs). Incorporating CUDA Quantum into Qristal also means users can run large-scale supercomputer simulations of future hybrid quantum-classical computers that simultaneously exploit quantum processors, classical CPUs and GPUs."

"The integration of NVIDIA CUDA Quantum within Qristal brings hybrid quantum computing with diamond-based quantum hardware one step closer to reality," said Timothy Costa, Director of High Performance Computing and Quantum Computing at NVIDIA. "As the leading full-stack development platform, CUDA Quantum enables dynamic workflows to seamlessly use quantum and GPU acceleration, which is essential to unlock the potential of quantum computing."

Quantum Brilliance's diamond-based quantum accelerators were designed from the outset with hybrid quantum-classical applications in mind. They run at room temperature and can be miniaturised, allowing them to be deployed at scale in edge, cloud and supercomputing applications. Qristal is the leading full-stack software package for writing, compiling, testing and simulating quantum and hybrid quantum-classical programs.

About Quantum Brilliance

Founded in 2019, Quantum Brilliance is a venture-backed quantum products and solutions company developing diamond quantum computers supported by software and applications. Quantum Brilliance's goal is to enable mass deployment of its quantum technology to propel industries to harness edge computing applications and next-generation supercomputers. Quantum Brilliance has global partnerships in the Americas, EMEA and Asia Pacific, working with governments, supercomputing centres, research organisations and industry.

Alex Mercurio

HKA Marketing Communications

+1 714-426-0444

[email us here](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/623261490>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2023 Newsmatics Inc. All Right Reserved.