UCL Quantum Society

Issue 16
27/02/26

Q-NEWSLETTER

HIGHLIGHT

Quantum and Cats

The quantum Cheshire cat is the controversial idea that, in carefully engineered quantum setups, a particle ("the cat") and one of its properties ("the grin," e.g., circular polarization or spin) can appear to take different paths: you can detect the particle in one arm of an interferometer while the measurements detect its polarization/spin in the other.

The controversy is interpretational: critics argue it can be re-described as standard quantum interference rather than a literal "disembodied" property.

A newer thought experiment sharpens the claim by avoiding weak-measurement reconstruction: a particle is confined to one half of a two-chamber cylinder with a vanishingly small tunnelling probability to the other side, yet the setup predicts a measurable angular-momentum (spin) transfer at the far wall. This suggests the "grin" can flow where essentially no particle flux goes.

RESEARCH

Quantum-Guided Optimisation

Amazon Web Services (AWS) researchers introduced a hybrid optimisation method called the Quantum-Guided Cluster Algorithm (QGCA), developed for complex optimisation tasks consisting of many binary decisions. In the first step, a quantum routine (such as QAOA) computes correlations between decisions of the problem, revealing which ones tend to behave similarly in near-optimal solutions. A classical optimiser then uses this information to update groups of linked decisions together, rather than changing one decision at a time, making the search more efficient on complex problem landscapes. The authors stress that performance depends on how accurately those links are learned, so scaling the approach will rely on higher-quality information as quantum hardware and algorithms improve.

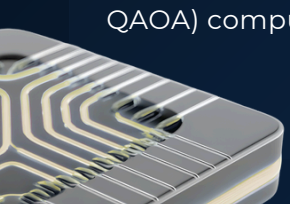
MARKET

Reliance Global Moves Into Post-Quantum Cybersecurity With Enquantum Deal

Reliance Global Group (Nasdaq: EZRA) has signed a definitive agreement to acquire, over time, a 51% controlling stake in Enquantum Ltd. Enquantum is developing hardware-accelerated, NIST-aligned post-quantum cryptography solutions designed for high-throughput network environments.

Under Reliance's Scale51/EZRA International Group strategy, Enquantum will be integrated into the company's broader technology expansion initiatives as a dedicated post-quantum cybersecurity platform.

The deal values the target 51% ownership at $2.125M, which will be paid in milestone-based tranches over 10 months, with an initial 8% stake expected at the first closing (including conversion of a $166k bridge note alongside new cash investment), and a final "control top-up" to reach majority control.



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