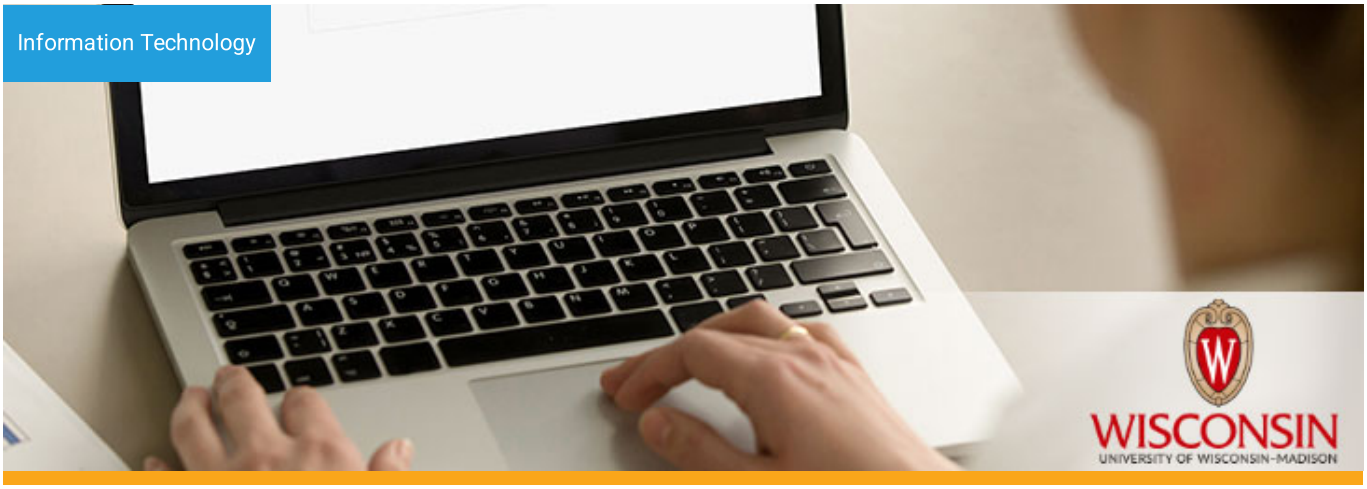
Information Technology



SYSTEMS AND METHODS FOR EFFICIENT SYNCHRONIZATION FOR FAULT-TOLERANT QUANTUM COMPUTERS

View U.S. Patent Application Publication No. US-2026-0057269 in PDF format.

WARF: P240341US01

Inventors: Swamit Tannu, Satvik Maurya

The Invention

UW-Madison researchers have created synchronization methods to reduce the impact of idling errors and enable lower logical error rates for Quantum Error Correction protocols. Using this method the synchronization slack is absorbed by distributing it within the code cycle, rather than making the leading logical qubit wait for the one lagging. The new synchronization method inserts delays that are interleaved with the gates used for syndrome generation to enable better detection of idling errors.

Additional Information

For More Information About the Inventors

- Swamit Tannu

Tech Fields

- Information Technology : Computing methods, software & machine learning

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842