Queen's Centre for Security & Privacy

Distinguished Speaker Series

Dr. Walid Rjaibi

Becoming Quantum Safe

Thursday, January 22, 2026, 2:30-3:30 PM

Dupuis Hall – Room 215

Abstract

With its unprecedented processing power, quantum computing promises to revolutionize numerous fields, including medicine, artificial intelligence, and space exploration. Yet this same power can also be used by malicious actors to undermine the cryptographic foundations that secure our digital world. Even before quantum computers can break current encryption, adversaries can harvest sensitive data now and decrypt it later, putting data with long confidentiality lifespans at immediate risk. This session explores the path toward quantum safe security through practical and standards-based approaches. It introduces the post quantum cryptography (PQC) standard and presents a real-world case study demonstrating its successful implementation to protect sensitive data. The session also highlights solutions that help organizations manage their transition to quantum safety, including the discovery and inventory of cryptographic assets, comprehensive risk assessment, and the execution of effective remediation strategies.

Biography

Dr. Walid Rjaibi is a Distinguished Engineer and Global Architect for Quantum Safe at IBM. A global leader in modern and post-quantum security, he has shaped the design and strategy of some of the industry's most critical data protection technologies. Throughout his IBM career, Walid has served in pivotal roles including CTO, Research Staff Member, Chief Architect, and Senior Development Manager, leading major innovations such as DB2 Transparent Database Encryption, Fine-Grained Access Control, and Network Trusted Contexts. He holds 30 patents and is co-author of *Becoming Quantum Safe* (Wiley). Walid also advises industry and government leaders on crypto-agility and serves as an Adjunct Professor at Toronto Metropolitan University, in addition to sitting on multiple university advisory boards.