

A man with a beard, wearing a dark cap and glasses, is shown in profile, looking intently at a computer monitor. The monitor displays lines of code in various colors (green, blue, red) against a dark background. The scene is dimly lit, with the primary light source being the glow from the screen, which casts a blue and green hue on the man's face and the surrounding environment.

# Ameaças e oportunidades de tecnologias emergentes



Ronan Damasco  
National Technology Officer  
Microsoft Brasil



# Tecnologias Quânticas

Comunicações Seguras



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# China's quantum satellite achieves 'spooky action' at record distance

By Gabriel Popkin | Jun. 15, 2017, 2:00 PM



search

Home > Physics > Quantum Physics > January 19, 2018

## Real-world intercontinental quantum communications enabled by the Micius satellite

January 19, 2018, University of Science and Technology of China



Illustration of the three cooperating ground stations (Graz, Nanshan, and Xinglong). Listed are all paths used for key generation and the corresponding final key length Credit: University of Science and Technology of China

## Microsoft Azure Quantum Blog

# Microsoft and Photonic join forces on the path to quantum at scale

November 8, 2023 • 3 min read

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[Dennis Tom](#)

General Manager of Azure Quantum

We are excited to announce a strategic co-innovation collaboration with [Photonic Inc.](#), a company focused on building scalable, fault tolerant, and distributed quantum technologies. Our shared mission is to unlock the next stages in quantum networking and empower the quantum computing ecosystem with new capabilities enabled by our unique and complementary approaches to scalable quantum infrastructure.

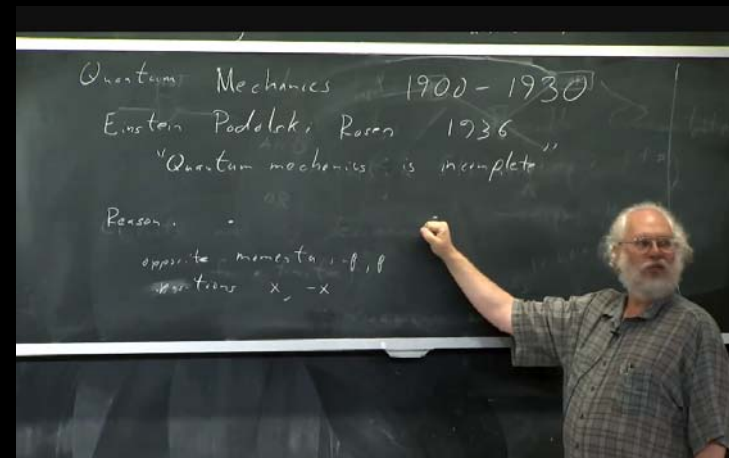
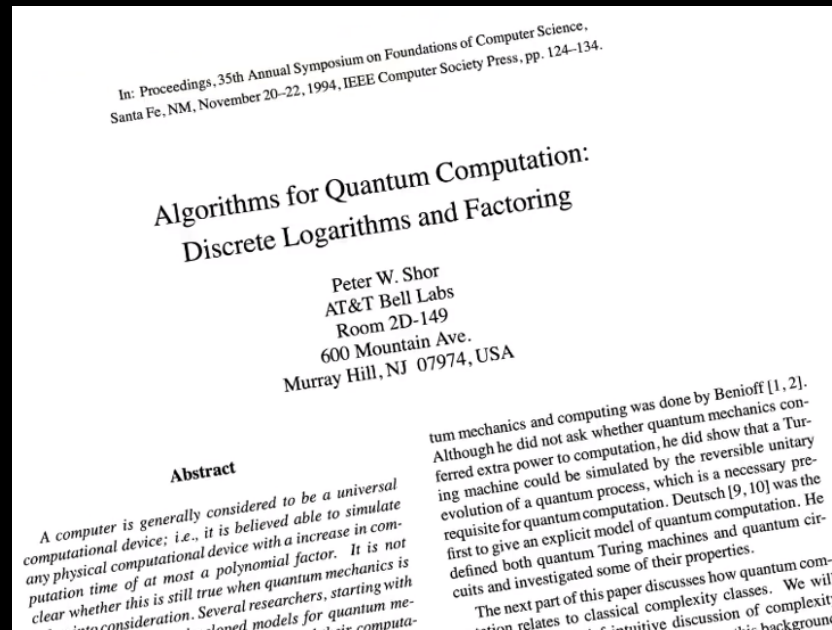
By combining Photonic's novel spin-photon architecture that natively supports quantum communication over standard telecom wavelengths with the global scale and state-of-the-art infrastructure of Azure, we will work together to integrate quantum networking capabilities into everyday operating environments. Together, we aim to deliver new technologies that will enable reliable quantum communication over long distances and accelerate scientific research and development with quantum computing devices to be integrated into [Azure Quantum Elements](#).

# Criptografia



# Peter Shor (1994)

## Algoritmo de Shor | Fatoração de números primos





## NEWS

## NIST Releases First 3 Finalized Post-Quantum Encryption Standards

August 13, 2024

- NIST has released a final set of encryption tools designed to withstand the attack of a quantum computer.
- These post-quantum encryption standards secure a wide range of electronic information, from confidential email messages to e-commerce transactions that propel the modern economy.
- NIST is encouraging computer system administrators to begin transitioning to the new standards as soon as possible.



Credit: J. Wang/NIST and Shutterstock

### MEDIA CONTACT

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(301) 975-4261

### ORGANIZATIONS

Information Technology Laboratory  
Computer Security Division  
Cryptographic Technology Group

### RELATED NEWS

[NIST to Standardize Encryption Algorithms That Can Resist Attack by Quantum Computers](#)

### RELATED LINKS

[What Is Post-Quantum Cryptography?](#)

[FIPS 203](#)

[FIPS 204](#)

[FIPS 205](#)

[Post-Quantum Cryptography Standardization Project](#)

<https://www.nist.gov/news-events/news/2024/08/nist-releases-first-3-finalized-post-quantum-encryption-standards>



## Apple's iMessage Is Getting Post-Quantum Encryption

Useful quantum computers aren't a reality—yet. But in one of the biggest deployments of post-quantum encryption so far, Apple is bringing the technology to iMessage.



PHOTOGRAPH: SPENCER PLATT/GETTY IMAGES

[https://www.wired.com/story/apple-pq3-post-quantum-encryption/?bxid=5cec2fd624c17c4c64720314&cndid=52216460&esrc=desktopInterstitial&source=Email\\_Q\\_EDT\\_WIR\\_NEWSLETTER\\_Q\\_DAILY\\_ZZ&utm\\_brand=wired&utm\\_campaign=aud-dev&utm\\_content=WIR\\_Daily\\_022124&utm\\_mailing=WIR\\_Daily\\_022124&utm\\_medium=email&utm\\_source=nl&utm\\_term=WIR\\_Daily\\_Active](https://www.wired.com/story/apple-pq3-post-quantum-encryption/?bxid=5cec2fd624c17c4c64720314&cndid=52216460&esrc=desktopInterstitial&source=Email_Q_EDT_WIR_NEWSLETTER_Q_DAILY_ZZ&utm_brand=wired&utm_campaign=aud-dev&utm_content=WIR_Daily_022124&utm_mailing=WIR_Daily_022124&utm_medium=email&utm_source=nl&utm_term=WIR_Daily_Active)

## Google Chrome's new post-quantum cryptography may break TLS connections

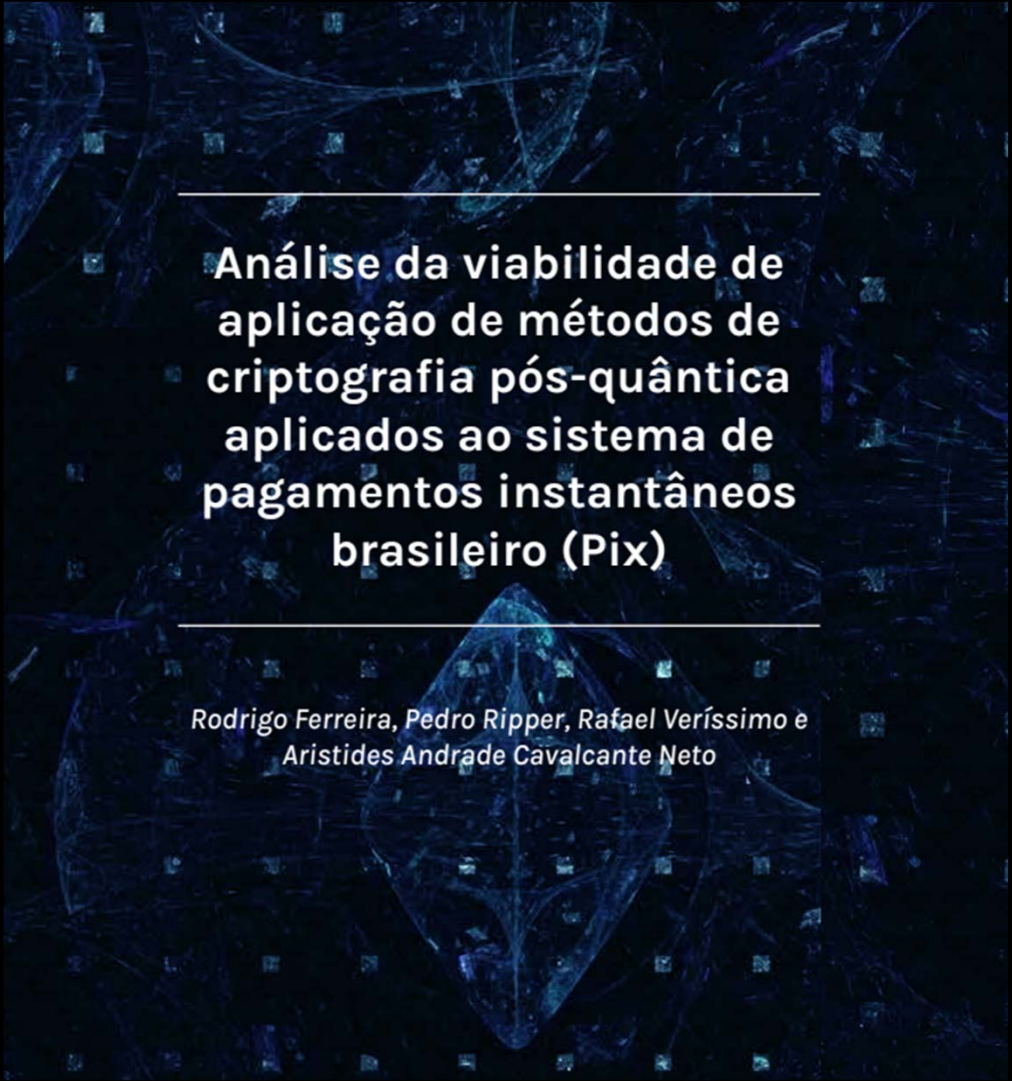
By Sergiu Gatlan

April 28, 2024 10:19 AM



KICHARU SHACK, RESEARCH DIRECTOR FOR MICROSOFT'S PROJECT ANITA, HOIDS A DATA STORAGE PLATTER. (MICROSOFT PHOTO)

[https://www.bleepingcomputer.com/news/security/google-chromes-new-post-quantum-cryptography-may-break-tls-connections/#google\\_vignette](https://www.bleepingcomputer.com/news/security/google-chromes-new-post-quantum-cryptography-may-break-tls-connections/#google_vignette)



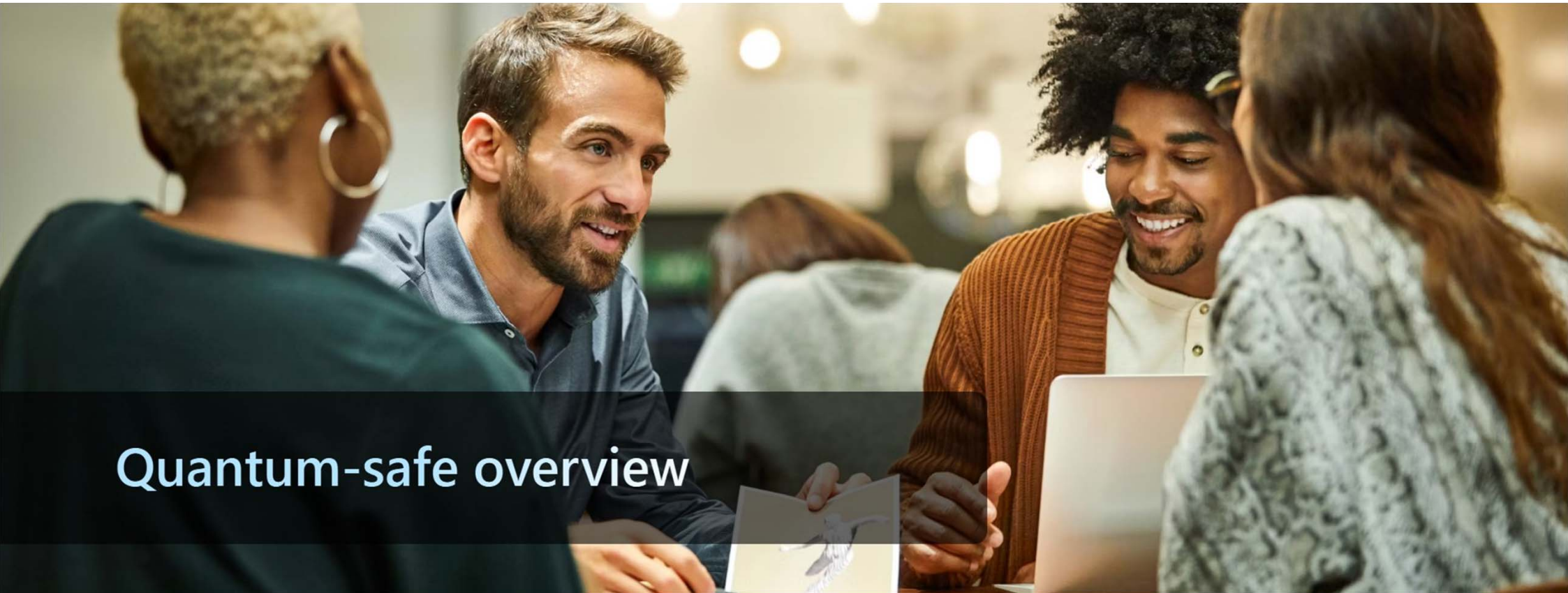
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**Análise da viabilidade de  
aplicação de métodos de  
criptografia pós-quântica  
aplicados ao sistema de  
pagamentos instantâneos  
brasileiro (Pix)**

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*Rodrigo Ferreira, Pedro Ripper, Rafael Veríssimo e  
Aristides Andrade Cavalcante Neto*

<https://fenasbac.com.br/documentos/criptografia-pos-quantica-pt.pdf>



## Quantum-safe overview

# Ensuring a quantum-safe future, together

From climate change to food security, quantum computing can help address some of the world's biggest challenges. However, we must remain vigilant about potential misuse of scaled quantum computers which could threaten cryptographic algorithms and secure communications. Microsoft is working with governments, global security organizations, and our partners to develop and deploy quantum-safe technologies.



EMBRAP II > COMUNICAÇÃO > NOTÍCIAS > FUTURO DA INDÚSTRIA: INICIATIVA OFERECE R\$ 60 MILHÕES PARA DESENVOLVER COMPUTAÇÃO QUÂNTICA

# FUTURO DA INDÚSTRIA: INICIATIVA OFERECE R\$ 60 MILHÕES PARA DESENVOLVER COMPUTAÇÃO QUÂNTICA

NOTÍCIAS



<https://embrapii.org.br/futuro-da-industria-iniciativa-oferece-r-60-milhoes-para-desenvolver-computacao-quantica/>

# Inteligência Artificial

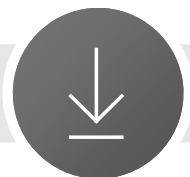


# GenAI está sendo empregado por agentes de ameaças

Geração de malware



Personalizando o exploits



Phishing e engenharia social



Comunicação de comando e controle



Descoberta automatizada de vulnerabilidades



Quebra de senha



Disfarçando código malicioso



Deepfakes: dados, e-mail, voz



# Copilot for Security aumenta a precisão e a velocidade dos analistas



**39%**

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mais rápido em todas as tarefas



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relataram melhoria na qualidade do trabalho



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cada organização do  
planeta a **conquistar mais**