



DEPARTMENT OF COMPUTER SCIENCE

TEXAS TECH
Whitacre College of Engineering

Fundamental Limits to Quantum Communication

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Tuesday, Feb. 3rd, 2026
9:30 a.m.

Zoom:

<https://texastech.zoom.us/j/98838864958?pwd=vb9b8yJKhezrMdh1iLXrlD2UOUYQb.1>

Meeting ID: 988 3886 4958
Passcode: 674758



Abstract: In this seminar, I will investigate the fundamental limits and optimal rates governing quantum communication. I will focus on point-to-point links, repeater chains, and general network topologies, ranging from fiber-based to free-space and satellite-assisted architectures. I will identify fundamental constraints on quantum key distribution and entanglement distribution, and explore their connections to holographic entropy bounds.

Bio: Stefano Pirandola (Rome “La Sapienza”, MIT, York) is internationally recognized for pioneering contributions to quantum communication, security, and networking, with over 200 scientific publications. He is the recipient of the 2025 IET Achievement Medal in Quantum Technology, awarded by the Institution of Engineering and Technology.