

# Coloquio CAPA

## *“From quantum bits to quantum links”*

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Abstract:

Modern quantum computers are powerful, but today they are still small and isolated. A natural question is: can we connect different quantum processors and make them work together, like nodes in a network? In this talk I will explain how quantum information can be sent from one quantum processor to another using light as a messenger. This process, known as quantum state transfer, has already been demonstrated in several experiments, using both atoms and superconducting circuits. After introducing the basic idea, I will show how this transfer can be understood in simple terms and how it can be improved. By carefully designing how quantum information is converted into light, transported, and absorbed again, it is possible to build reliable links between distant quantum devices. These ideas open the door to distributed quantum computation and to future quantum networks where information is shared and processed across multiple.



Fecha: viernes, 22 de mayo de 2026

Hora: 12:00 horas

Lugar: Salón de Actos de Matemáticas

