



University of Crete
Department of Physics

Physics Colloquium

Thursday, 22 October 2026 | 17:00 – 18:00, Seminar Room 3rd Floor

Traversable wormholes in quantum gravity

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ABSTRACT

I will show that traversable wormholes can consistently exist in theories of quantum gravity. From the perspective of external observers, travel through the wormhole is a form of quantum teleportation. I will further discuss other surprising aspects of the nature of quantum information in dynamical spacetimes, and how emergent gravitational descriptions can give new insight into quantum phenomena.
