

# Quantum null energy condition, weak cosmic censorship, and holography

*Thursday, 5 December 2019 14:15 (15 minutes)*

We discuss the compatibility of AdS/CFT duality with the bulk and boundary causality which asserts that the fastest null geodesic connecting any two boundary points must lie entirely on the boundary. We show that if this type of causality fails without breaking the averaged null energy condition (ANEC), the weak cosmic censorship must be violated. We also discuss relationships between the bulk and boundary causality and a role of quantum null energy condition derived from ANEC in the context of AdS/CFT duality.

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**Session Classification:** Short talks