

# Quantum Null Energy Condition from Numerical Holography

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## ABSTRACT

*Since all the classical energy conditions fail at some point, it is necessary to improve them. The quantum null energy condition is a novel approach for a local energy condition valid also in relativistic quantum field theories. In the past two years several proofs for this conjecture were provided, with increasing generality. In this talk I am going to present the first examples where the QNEC is calculated explicitly and its (non-)saturation is studied.*

*In addition to the analytic result for vacuum, we were able to calculate the entanglement entropy of a thermal state using numerical holography. Further we investigate a system of colliding lumps of energy in which the classical null energy condition is violated.*

## References

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