

ENTANGLEMENT AND SYMMETRY BREAKING

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Entanglement asymmetry is a recently introduced quantum-information based observable that detects symmetry breaking in quantum states on subsystems and out of equilibrium. After reviewing this observable, I will describe how to compute it in CFTs for a class of coherent states in a perturbative expansion. I will present explicit formulas for various subsystem geometries as well as for its time dependence, exhibiting in some cases the quantum Mpemba effect. The class of states we consider have a simple holographic description, allowing us to present a dual holographic computation of entanglement asymmetry.