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## The effect of gravitational energy on horizon thermodynamics

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Thermodynamics of local causal horizons binds together gravity, quantum entanglement and the Unruh effect in a relatively simple setting. Moreover, it offers an elegant way to derive the equations governing the gravitational dynamics. A central role in this derivation is played by the causal structure of the spacetime and the equivalence principle(s). In my talk, I explore how the quasi-local energy of the gravitational field affects the thermodynamics of local causal horizons, and whether it can lead to corrections to the Einstein field equations. I also comment on the role of the energy conditions in this approach.

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