

## Thermodynamics of spacetime: From Unimodular Gravity to quantum gravity phenomenology

**Abstract:** I present a review of concepts of thermodynamics of spacetime and the gravitational dynamics encoding in it, discussing also the recovery of Weyl transverse gravity instead of General Relativity. Then, I present a formalism to analyze low-energy quantum gravity modifications in a completely general framework based on the thermodynamics of spacetime. For that purpose, I consider quantum gravity effects via a parametrized modification of entropy by an extra logarithmic term in the area, predicted in most of the different approaches to quantum gravity. These results provide a general expression of quantum phenomenological equations of gravitational dynamics. Furthermore, I outline the application of the modified dynamics to particular models, such as cosmology and its predictions.