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Finite Action Principle and black holes in Horava-Lifszyc gravity

Wednesday, 7 July 2021 11:50 (20 minutes)

It is expected that the quantum gravity should resolve the black-hole singularity problem, according to the finite action principle one may ask which of the microscopic actions remain finite for non-singular black holes and conversely interfere destructively for the singular ones. We also show that the finite action selection principle works for H-L gravity in the context of black holes (the action is finite for non-singular BH and conversely for the singular). Furthermore, we have found that wormholes possess a Finite Action and hence contribute to the path-integral of QG.

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