Geometric Foundations of Gravity 2025



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Generalized Hidden Conformal Symmetry in Quadratic f(T) Gravity

We find the non-extremal charged rotating black holes in quadratic f (T) gravity are holographically dual to two different hidden conformal field theories. The two conformal field theories can be merged to find a very general hidden conformal field theory, which is generated by the SL(2, Z) modular group. We also carry out the calculation to the extremal limit of the black holes, and find the corresponding dual quantities. Contrary to the existence of two different dual conformal field theories for the extremal charged rotating black holes in Einstein gravity, we find only one dual theory exists for the extremal charged rotating black holes in quadratic f (T) gravity.

Author: Prof. GHEZELBASH, Masoud

Presenter: Prof. GHEZELBASH, Masoud

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