



BLACK HOLE THERMODYNAMICS IN LORENTZ SYMMETRY BREAKING SCENARIOS

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It has been recently discussed whether the Lorentz symmetry violation is responsible for contradicting the generalized second law of black hole thermo-dynamics. As argued by Dubovsky et. al., ghost condensate theories may lead to violation of the aforementioned law. Having this in mind, we apply the quantum tunneling method to two Bumblebee gravity models and obtain their temperatures, entropies and heat capacities. We then discuss the effects of Lorentz symmetry (LSB) breaking in Schwarzschild-like black hole thermo-dynamics. For instance, the LSB leads to a modification of the first law of thermodynamics.