Contribution ID: **74** Type: **Invited talk in a parallel session**

# GUP Corrected Casimir Wormholes in symmetric teleparallel Gravity

We have systematically presented the effect of the Generalized Uncertainty Principle (GUP) in Casimir wormhole space-time in the recently proposed modified gravity, the so-called symmetric teleparallel gravity, or $f(Q)$ gravity. We consider two famous GUP models, such as the Kempf, Mangano, and Mann (KMM) model and the Detournay, Gabriel, and Spindel (DGS) model, in this study. Also, to find the solutions, we assumed two different $f(Q)$ forms and obtained analytic as well as numerical solutions under the effect of GUP. Besides this, we investigate the solutions with three different redshift functions under an anisotropic fluid located at the throat. Further, we analyzed the obtained wormhole solutions with energy conditions, especially null energy conditions (NEC) at the wormhole's throat, and encountered that some arbitrary quantity disrespects the classical energy conditions at the wormhole throat of radius $r_0$. Later, the ADM mass and the volume integral quantifier are also discussed to calculate the amount of exotic matter required near the wormhole throat. Additionally, we show the behavior of the equation of state parameters under the effect of GUP.

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**Session Classification:** Wormholes, energy conditions and time machines

**Track Classification:** Alternative Theories (AT): Wormholes, energy conditions and time machines