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## Self Sustained Traversable Wormholes in Distorted Gravity

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We consider the effects of Distorted Gravity on the traversability of the wormholes. In particular, we consider configurations which are sustained by their own gravitational quantum fluctuations. The Ultra-Violet divergences appearing to one loop are taken under control with the help of a Noncommutative geometry representation and Gravity's Rainbow. In this context, it will be shown that for every framework, the self-sustained equation will produce a Wheeler wormhole, namely a wormhole of Planckian size. This means that, from the point of view of traversability, the wormhole will be traversable in principle, but not in practice. To this purpose, in the context of Gravity's Rainbow we have considered different proposals of rainbow's functions to see if the smallness of the wormhole is dependent on the chosen form of the rainbow's function. Unfortunately, we discover that this is not the case and we suggest that the self-sustained equation can be improved to see if the wormhole radius can be enlarged or not. Some consequences on topology change are discussed.

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