

Physical consequences of non-additive and non-extensive entropies

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In recent years various generalizations of entropy have been employed to examine other issues from statistical perspective. These include applications of non-extensive entropy in deriving GUPs, which are of interest due to allowing to account for minimal length scale (of relevance in quantum gravity, and modified relativity schemes); or applications of non-additive entropy to cosmological problems. In this we investigate combined impact of considering both non-additive and also non-extensive entropy on these problems. To that end we will be employing two-parameter entropic functionals $S_{q,\delta}$ introduced by Tsallis.