

# Bouncing behaviour in non-commutative space-time

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The non-commutative space-time structures, naturally incorporate the minimal length scale, carries the imprints of quantum gravity signals. We show that the kappa-Minkowski space-time, a Lie-algebraic type non-commutative space-time appearing in the low energy limit of loop quantum gravity, avoids the initial singularity in early universe by providing a bounce behaviour.

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