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The contribution of QCD trace anomaly to hadron mass

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We present the first Lattice QCD calculation of the quark and gluon trace anomaly contributions to the hadron masses, using the overlap fermion on the 2+1 flavor dynamical Domain wall quark ensemble. The result shows that the gluon trace anomaly contributes to most of the nucleon mass, and the contribution in the pion state is smaller than that in others.

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