

Gravitational four-fermion interaction and dynamics of the early Universe

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If torsion exists, it generates gravitational four-fermion interaction (GFFI), essential on the Planck scale. We analyze the influence of this interaction on the Friedmann-Lemaitre-Robertson-Walker cosmology. Explicit analytical solution is derived for the problem where both the energy-momentum tensor generated by GFFI and the common ultrarelativistic energy-momentum tensor are included. We demonstrate that GFFI does not result in Big Bounce.

Primary author: Prof. KHRIPLOVICH, Iosif (Budker Institute of Nuclear Physics, Novosibirsk)

Co-author: RUDENKO, Alexander (Budker Institute of Nuclear Physics, Novosibirsk)

Presenter: Prof. KHRIPLOVICH, Iosif (Budker Institute of Nuclear Physics, Novosibirsk)

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