

Cosmic Antineutrinos as a Source of Dark Energy in Large Extradimensions

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Abstract

Motivated by the remarkable coincidence between the scales of Dark Energy, the neutrino mass $10^{-3}eV$ and the antigravity of antimatter hypothesis, we suggest that Dark Energy corresponds to the energy density of extradimensional antineutrinos ν . Concretely, such antineutrinos are assumed to be associated with the virtual neutrino-antineutrino pairs $\nu - \bar{\nu}$ in the spacetime fluctuation enhanced by the gravitational field near to black hole horizons.

Key words: Neutrino; Extradimension; Dark Energy.

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