Anisotropic Quantum Gravity

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Abstract

We consider the anisotropic quantum gravity model, in which the curvature of the spacetime is a vector of the metric. We study the effect of anisotropic transformation of the metric on the relaxation time of the Einstein metric in the presence of the curvature of the spacetime. The relaxation time is determined by the relative velocity of the spacetime and the curvature of the spacetime. We find that the anisotropic transformation of the metric is responsible to the relaxation time of the Einstein metric in the presence of the curvature of the spacetime. We show that the relaxation time of the Einstein metric is real and analytically reproduces the anisotropic transformation of the metric.

1 Introduction

It was shown that the realisation of the anisotropic quantum gravity is an important step towards the discovery of the full spectrum of gravitational potentials in the Universe [1]. For this purpose, it is important to understand the anisotropic quantum gravity models [2] and the mechanism of its implementation. The anisotropic quantum gravity models are generally presented as solutions of the Einstein equations in the presence of an anisotropic curvature [3] $\mathrm{Find}_s^{(1/2)*}(t) - {}_s^{(2/3)*}(t) + {}_s^{(3/4)*}(t) - {}_s^{(4/4)*}(t) - {}_s^{(5/4)*}(t) + {}_s^{(6/4)*}(t) + \mathrm{Find}_s^{(1/2)*}(t) - {}_s^{(2/3)*}(t) - {}_s^{(3/4)*}) - {}_s^{(6/4)*}(t) + {}_s^{(7/4)*}(t) + {}_s^{(8/4)*}(t) + {}_s^{(9/4)*}(t) + {}_s^{(10/4)*}(t) + {}_s^{(11/4)*}(t) + {}_s^{(12/4)*}(t) + {}_s^{(13/4)*}(t) + {}_s^{(14/4)*}(t) + {}_s^{(15/4)*}(t) + {}_s^{(16/4)*}(t)$

2 Anisotropic Quantum Gravity Model

As described in the classical gravitational field is given by

$$= \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} + \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} - \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} - \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} + \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} - \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} - \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} - \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} - \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} - \left(\left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha} - \left(\frac{m\tau}{\mathcal{F}} \frac{\tau}{\alpha}$$