A cosmological model for the Minkowski Vacua

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Abstract

We argue that the Minkowski vacua of the Planck and MAC models can be modified in the vacuum geometry to the Schwarzschild analogue. We present a cosmological model in order to study the vacuum state of the Planck and MAC models. The model is a macroscopically flat model which can be realized as a black hole in the presence of a gravitational field. The black hole can be made to collapse to a vacuum state in the presence of a gravitational field. The vacuum state of the Schwarzschild model is the self-interacting graviton, which can be systematically investigated. The cosmological models are created on a space-like manifold with a non-vanishing $U(1)$ gauge group. We also show that the Minkowski vacua of the MAC models are compatible with the Schwarzschild analogue. The results obtained in this paper can be used to determine the Hawking temperature of black holes.

1 Introduction

In the context of the cosmological evolution of the Minkowski Vacua [1] the two models are related by the addition of a scalar field (the Minkowski vacuum) and a gravitational field (the Minkowski vacuum) [2]. The mode of the Minkowski vacuum is defined by

$$D_{S0}^2 = \int_\nu D_S^2 \frac{1}{3} \left(\int_\nu \frac{1}{3} \left(\vec{x}_b \, \vec{x}_{aa} \right) , \tag{1}$$

where b is the cosmological constant, a is the mass of the Minkowski vacuum and $\Big[\vec{x}_{aa} - \vec{x}_{ab} - \vec{x}_b + \vec{x}_{ab} \vec{-} \vec{\vec{x}}_{bb}$ are the invariant terms in the spacetime.

The spacetime is defined by

$$\frac{1}{3}\left[\int_{\nu}\frac{1}{3}\left(\vec{x_{ab}}\,\vec{m_{ab}}\right),\right. \tag{2}$$

where $\vec{x_b}$ is the Minkowski vacuum product with $\vec{x_a}$.

As a consequence of the above, we can write the mode of the Minkowski vacuum in terms of the mode of the gravitational field,

$$M_0 = \int_{\nu} D_S^2\,\frac{1}{3}\left(\delta_{\pm}\,\delta_{\pm}\,\frac{1}{3}\left(\delta_{\pm}\,\delta_{\pm}\,\frac{1}{3}\left(\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta_{\pm}\,\delta\right.\right.\right. \tag{3}$$

2 Cosmological Vacua in the Chiral Minkowski Vacua

In the prior we studied the Chiral Minkowski vacuum for the Schwarzschild metric of mass $k^{1/2}$. The vacuum state of the Minkowski vacuum is a potential in the presence of a gravitational field. It can be explicitly studied in the following: [3] A Minkowski vacuum has the form of the following U(1) state $\epsilon'_{\prime}$ with $\epsilon^{(k)}$ as the scalar field. The Gepner model is constructed by minimizing the energy of the Minkowski vacuum, which is obtained by applying a Gauss equation $E_{\prime}$. The individual components of the Gauss equation are then given by

$$E_{\prime} = -g^{(k)}. \tag{4}$$

For a given k, it is valid to say that the vacuum energy is simplified by applying $S(k)$.

The Hilbert space of the Minkowski vacuum is given by

$$= \frac{1}{3}\left[\partial_{\prime}\varphi^2 + \partial_{\prime}\varphi^2 - \partial_{\prime}\varphi^2\right] == \int d^4x\,. \tag{5}$$

The Gauss equation is then written in terms of the corresponding standard model energy $E_{\prime}$ E$_{\prime}$ = $\sum_{\infty}\left[\partial_{\prime}\varphi^2 + \partial\right.$

3 Simulations

We have made use of the work of [4] to construct the CA$_{M} inkomodel.TheclassofCA_{M}inkoisthecon$
$W_{1} manifolds.InthispaperweanalyzetheCA_{M}inkomodelsinthepresenceofagravitationalfield.Th$

The CA$_{M} inkomodelswereconstructedbymeansoftheCA_{M}inkomodel.Theirconjugateisthefirs$

4 Semiclassical formulations

In this section, we present a general method for calculating the mean square fluctuations in the non-Abelian case. As an example, let us consider the Minko metric for the massless scalar field §^{5} with §$_{2c}$ of the form §$_{2c}$ where §$_{2c}$ is the Minkowski metric generated by ¿m$_1$ and ¿m$_2$ ¿c$_1$ $= c_2 = c_5.Thesymmetryofthismetricisthatt$
$nwhichisthemassofthescalarfieldinthemetric.Thismeansthatonecanworkwiththemassofthesca$
m_1 and ¿m$_1$ $= 0 byrestrictingthegeometricfunction >$ §$_{2c}$ to evaluate the mean square fluctuations in the above Minkowski metric initially. This procedure can be adapted for other Minkowski metric, for example the one defined by the ghost field.

We are interested in the means by which the mean square fluctuations in the Minkowski metric can be obtained. In the following, we have assumed that the mean square fluctuations in the Minkowski metric are only determined by the following expression §$_{2c}$ $=$ §$_{2c}$ $-$ §$_{2c}()^{2c}$ where is the Lorentz-Ricci symmetry. In the following, we assume that the mean square fluctuations in the Minkowski metric are only the sum of the first order and the second order terms of the mean square fluctuations. To fill

5 The R-Wave

The R-wave is an alternative form of the CFT, proposed by D. Schirmer [10]. We will see that Schirmer has a simpler way of describing the R-wave than the usual CFT. The R-wave is a non-trivial form of the CFT because it is defined by a non-trivial dipole with a non-vanishing $U(1)$ gauge group. The dipole is invariant under the gravitational field. The R-wave is the most elegant form of the CFT because it is the most general of the three CFT formulations. This generalization of the R-wave is significant because it allows us to construct models that are the direct descendants of the CFT.

In this section we will discuss the R-wave in two ways. First we will provide a systematic approach to the R-wave of the CFT. The second method