

The electron-positron pair-spin model in the presence of electromagnetic fields

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July 6, 2019

Abstract

We investigate the presence of an electron or a positron in a complex space containing a complex electric field and a complex magnetic field. In this context we consider the hybrid matrix model (HMM) on the complex plane. The electron-positron pair-spin model is formulated in the HMM framework and gives rise to the gravity duality. We find the exact solutions of the $U(1)$ gauge theory and the HMM model. We also provide a non-perturbative approach to determine the boundary conditions for the HMM model and the corresponding quantum gravity theory.

1 Introduction

A few years ago, many researchers have thought of an electron-positron pair-spin model which would describe the dynamics of the electron and the positron in an environment containing a complex electromagnetic field. The reason is simple: the electron is a double-coupled ion in a complex space, and the positron in a complex space contains an even number of charge-coupled quarks. So, the electron is a special case of the positron in a complex space. This is the basis of the electron-positron pair-spin model, which is based on the HMM framework. Recently, several researchers have considered the electron-positron model in the presence of an electron or a positron in a complex space containing a complex electric field and a complex magnetic field. In this context, the electron is a special case of the positron in a complex space. This is the basis of the electron-positron pair-spin model, which is

based on the HMM framework. This model, however, is without an exact solution, and it is not possible to obtain a precise solution to the U(1) gauge field theory. A solution to the U(1) gauge field theory is unknown, and we believe that it must be derived from the HMM framework.

The electron-positron model has been used to describe the dynamics of the electron in a complex space containing both charges and magnetic fields. In this context, the electron is a special case of the positron in a complex space, and it is the basis of the electron-positron pair. The electron is also related to the positron by the spatial and temporal correlations in the electron-positron model. It is known that the electron has a scalar and a positron counterpart. However, the scalar and the positron are not the same. In the electron-positron model, the electron is a vector at the origin of a complex space with two charges and a magnetic field. The electron is given by

$$(1)$$

It is therefore not possible to obtain a solution of the electron-positron model in the HMM framework. We propose a specific method for the derivation of this model from the HMM framework.

We now discuss the electron-positron model in a HMM framework. This model is based on the concept of electron and positron pair, which was introduced by H. Schrau and A. Ullmann, [1]. The electron pair has an integer energy and is associated with a complex scalar field. In this framework, the electron is a member of the positron pair. The positron is associated with a complex scalar field, the electron is a vector, and the electron-positron pair has a complex scalar field. The electron-positron model described in this paper is an electron pair model of the electron pair model. Although the electron-positron model is a classical model, it is not necessarily a classical model. It is not possible to obtain a precise solution to the electron-positron model in the HMM framework. We believe that it must be derived from the HMM framework.

In the electron-positron model, the electron is a vector in a complex space. In this framework, the electron is an operator of the complex scalar field with the same property as the electron. In this example, the electron is given by j

2 Conclusions

Many aspects of the study of gravity are described by an HMM framework. It is used in a variety of papers and as a basis to construct an effective 3-form model of gravity. However, the HMM framework is not a universal framework for all aspects of the study of gravity. In particular, there are various ways to construct the HMM framework on a complex plane. Some of these ways are: the nearly-identical approach, which is based on the over-multiplet infinitesimal approximation, is a technique to obtain the HMM framework in the background of a massless scalar field. This technique was also used by Kashaev et al. [2] to construct the HMM framework in the context of the supergravity. However, this picture is not universal in the case of highly charged scalar and exotic matter fields. In this paper we have developed a new approach based on the HMM framework. This approach is more flexible than the previous one and it is based on the interesting property that the mass of the non-infinite field can be incorporated into the kinetic terms. This means that the HMM framework can be used in a variety of contexts, not only in the context of gravity. In particular, the HMM framework can be used to describe gravity in the context of the far-field optics [3].

In this paper we have proposed a new method based on the HMM framework that enables us to obtain the HMM framework in the context of a complex plane. This approach is based on the idea that the mass of the non-infinite field can be incorporated into the kinetic terms within the HMM framework. This means that the HMM framework can be used in a variety of contexts, not only in the context of gravity. This may give rise to a variety of the fundamental equations of gravity, such as general relativity and the weak field. It also provides a specific way to construct the HMM framework in the context of the far-field optics [4].

One important step in this process is to find the exact solutions of the HMM equations. Because this can be done in a variety of ways, the HMM framework is not always 100

3 Acknowledgements

We wish to thank the colleagues at the Institute for Advanced Study, for useful discussions. This work has been supported by a National Science

Foundation Graduate Fellowship.

4 Acknowledgments

We would like to thank R. Sloboda for useful discussions and for providing us with the most recent version of the manuscript. This work was supported by the research grant SA-COP-CT-00-0095. A.J.M.R. acknowledges support from the Ministry of Education and Research and the Agrarian Reformatory Fund of the Ministry of Education and Research.

5 Appendix

In this Appendix we have calculated the bulk gravitational field for the electron-positron pairing quantum gravity. The bulk field is given by

$$\tilde{\phi} = \mathbb{1}_{\phi} \tilde{\phi} = \tilde{\phi} \tilde{\phi} = \tilde{\phi} \tilde{\phi} = \tilde{\phi}. \quad (2)$$

This equation is actually a partial analogue of the M1/M2 formulation. The bulk field is given by the equation

$$\begin{aligned} &= = = = \phi = \tilde{\phi} = \\ \tilde{\phi} = \end{aligned}$$