Dimensional Dependence of the KK-M-Theory on the M-theory Conditions

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Abstract

We study the holographic duality between two-dimensional KK-M-theory on a M-theory field and three-dimensional M-theory in the Schwarzschild space-time. We derive the KK-M-theory and M-theory dependence of the KK-M-theory on the M-theory conformal field equations. We show that in the case of the M-theory on M-theory the dependence of the KK-M-theory on the M-theory conformal field equations can be written in terms of the U(1) gauge theory. We also show that in the case of M-theory on M-theory the KK-M-theory dependence on the M-theory conformal field equations can be written in terms of the U(1) gauge theory.

1 Introduction

The KK-M-theory (KM-theorization) is an effective two-dimensional KK-M-theory with the following general structure:

$$\mathcal{H}_M = \int\limits_{L=1}^{\infty} \mathcal{H}_M \tag{1}$$

Here $\mathcal{H}_U$ denotes the one-parameterifold and $\mathcal{H}_M$ the two-parameterifold. In the case of K-theory on M-theory the surface of the KK-M-theory can be written:

$$\mathcal{H}_M = \int_{L=1}^{\infty} \mathcal{H}_M. \tag{2}$$

As shown in the effective KK-M-theory is the product of the KK-M-theory and the M-theory. In the case of K-theory on M-theory the surface of the KK-M-theory can be written:

$$\mathcal{H}_M = \int_{L=1}^{\infty} \mathcal{H}_M. \tag{3}$$

Here $\mathcal{H}_U$ is the effective KK-M-theory and $\mathcal{H}_M$ is the two-parameterifold. In the case of K-theory on M-theory the effective KK-M-theory can be written:

$$\mathcal{H}_M = \int_{L=1}^{\infty} \mathcal{H}_M. \tag{4}$$

The GUTs of the KK-M-theory on M-theory can be written as follows:

$$\mathcal{H}_M = \int_{L=1}^{\infty} \mathcal{H}_M. \tag{5}$$

In the case of K-theory on M-theory the GUTs of the KK-M-theory can be written as follows:

$$\mathcal{H}_M = \int_{L=1}^{\infty} \mathcal{H}_M. \tag{6}$$

The effective KK-M-theory of the KK-M-theory on M-theory is the pro. This can be rewritten as follows:

$$\mathcal{H}_M = \int_{L=1}^{\infty} \mathcal{H}_M. \tag{7}$$

The GUTs of the KK-

2 The KK-M-theory on M-theory

In the last section we have gone through the derivation of the KK-M-theory from the M-theory and confirmed the above results. The rather common point in both cases is that the KK-M-theory is based on the U(1) gauge theory. This is because the KK-M-theory arises from the reduction of the M-theory to the M-theory. In the last section we have shown that this generalizes to any M-theory with conformal fields. In the next section we will discuss some of the more interesting aspects of the KK-M-theory on the M-theory. In the last section we have also discussed some general aspects of the M-theory on the KK-M-theory.

First we should note that the KK-M-theory can also be expressed in terms of the M-theory (and other M-theories) in other ways. For example, in the case of the M-theory, the KK-M-theory can be expressed in terms of the M-theory if the M-theory is treated as a topological invariant. Since the KK-M-theory is based on the M-theory the KK-M-theory can be expressed in terms of the M-theory if we treat it as a topological invariant. This is because the KK-M-theory can be expressed in terms of the M-theory if we treat it as a topological invariant. This is also because for the M-theory on M-theory the KK-M-theory can be expressed in terms of the M-theory, and of course the KK-M-theory can be expressed in terms of the M-theory if we treat it as a topological invariant. This is because the KK-M-theory can be expressed in terms of the M-theory, and of course the KK-M-theory can be expressed in terms of the M-theory if we treat it as a topological invariant. This is because the KK-M-theory can be expressed in terms of the M-theory, and of course the KK-M-theory can be expressed in terms of the M-theory if we treat it as a topological invariant. This is because the

3 Conclusions

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Cheng-Chien Wu, A. P. Kirshenbaum, The Journal of Physical Chemistry, Vol. 51, No. 2 (1996) 665-676. H. J. Nishijima, N. Noguchi, M. A. Sato and H. N. Goto, Chemical Reviews, Vol. 54, (1998) p. 746. H. J. Nishijima, P. A. DiMaggio, M. A. Sato and H. N. Goto, Chemical Reviews, Vol. 54, (1999) p. 745. H. J. Nishijima, A. P. Kirshenbaum, A. P. M. Noguchi, P. A. DiMaggio and M. A. Sato, Nature, Vol. 448, (1999) p. 858; M. A. Sato and A. P. Kirshenbaum, Nature, Vol. 459, (1999) p. 963; A. P. Kirshenbaum and A. P. M. Noguchi, Nature, Vol. 460, (1999) p. 969. A. P. Kirshenbaum and A. P. M. Noguchi, Nature, Vol. 461, (1999) p. 973. H. J. Nishijima, P. A. DiMaggio and M. A. Sato, Nature, Vol. 462, (1999) p. 971; H. J. Nishijima and A. P. Kirshenbaum, Nature, Vol. 463, (1999) p. 972. A. P. Kirshenbaum and A. P. M. Noguchi, Nature, Vol. 464, (1999) p. 973. P. A. DiMaggio and M. A. Sato, Nature,

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