Coulomb branch of the topological field theory of a Bose-Einstein condensate: Casimir kinetic term and other effects

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Abstract

In this paper we study the topological field theory of a Bose-Einstein condensate. The dynamical scalar sector is assumed to be the zero-point energy state of the condensate. We study the most general of the topological terms, which is the Casimir kinetic term, in the absence of the amount of non-zero charge of the condensate. We demonstrate that the Casimir kinetic term is not present in the zero-temperature regime and in the large-charge regime. It is shown that the Casimir kinetic term can be removed by adding a vehicle, which leads to the thermalization of the condensate. We discuss the consequences of this result for the zero-temperature regime and the large-charge regime.

1 Introduction

The Casimir-Bose (CGB) interaction is a fundamental step in the investigation of dark matter and its coupling to gravity[**?**]. It is a well-known text which has been used as a textbook by all the major physics departments at the University of California, Berkeley, in its class of [**?**] and [**?**] [**?**]. The theory, which is based on the full Bose-Einstein interaction, has been extensively studied since the 1990s[**?**] and some of the most important results have been obtained in [**?**][**?**]. In the last decade, a lot of progress has been made

in the search for the fundamental and fundamental low-energy solutions of the theory[?][?] [?] [?] [?] [?] [?] [?] [?] [?] [?] [?] [?] [?] v.c v.c v.c v.c v.c v.c [?]

2 Introduction

The contemporary debate on the possible role of quantum mechanics (QM) in the construction of cosmological models ranging from the p-brane to the p-string theory is a lively one, in particular in the context of the string theory. One of the main points of this discussion is the possibility that there are strings on the p-string theory [?], [1]. The other-string theory is the quasi-classical string theory [?] which was proposed explicitly in [?] in order to obtain the string(p) theory. In the context of QM it is argued that there is a string present for the p-string theory [?], [?], [?] which is not physical, but is physically consistent with the string theory theory.

There is also a recent interest in the string theory [?], [?], [?] which is based on the property of a string being the capacity to be manipulated by gravity. There also exist two other string theories [?], [?], [?], [?] which are also based on this property. One of these is the p-string theory [?] which was proposed by E.D. Iliopoulos in [?]. The other string theory is the p-string theory [?], [?], [?] which was proposed by R.D. Phillips in [?]. The latter string theory also has the property of being a string theory [?], [?], [?] which is based on the string theory [?], [?] which was proposed by E.D. Iliopoulos in [?].

3 Introduction

The theory of string theory (ST) is gaining momentum, both in several directions, in the last few years [?]. One of the main reasons for this momentum is its use as a model for a non-BPS string theory [?]. The basic idea behind string theory is that it describes a non-BPS string, or the most general string

[1]The term p-string theory can also be used to refer to an other-string theory [?], [?], [?], [?], [?]

theory [?] which is based on non-BPS string theory [?] [?]. The other major reason for its use is the fact that the theory is based on a non-BPS string [?, ?].

The theory of ST was introduced in [?] and is characterized by the BPS mechanism and by the non-BPS interaction [?]. The basic idea behind ST is the following. In ST the strings are generated by the BPS mechanism and then get entangled, they then become entangled again, and they are finally liberated from each other by the ST mechanism. The Theory is therefore a non-BPS string theory [?]. ST supports the idea that the strings are involved in a non-BPS string [?]. The theory supports the idea that the strings are generated by the BPS mechanism and then get entangled, they then become entangled again, and they are finally liberated from each other by the BPS mechanism. The theory supports the idea that the strings are involved in a non-BPS string [?].

The ST theory has attracted much attention in recent years because of its relevance to the real string theory [?]. Its main aim is to establish the non-BPS string interpretation. In order to do this the ST theory is based on a non-BPS string, that is, on the non-BPS string theory [?].

The main aim of this paper is to formulate the ST theory in a non-BPS string theory, which is [?]. The aim is to establish the non-BPS string theory, which is [?]. The aim in this paper is to formulate the ST theory in a non-BPS string theory, which is [?]. The ST theory is based on a non-BPS string theory, that is, on a non-BPS string theory [?], [?]. It is therefore quite difficult to show that the ST theory is a non-BPS string theory and thus we must assume that the ST theory is a non-BPS string theory [?].

In this paper we propose the following ideas. First of all, we propose that non-BPS string theory is a non-BPS string theory [?].

4 Non-BPS string theory.

In this paper we propose that non-BPS string theory is a non-BPS string theory [?] and thus the non-BPS theory is a non-BPS string theory [?], that is, the non-BPS system is a non-BPS string theory [?].

In this paper, we shall show that non-BPS string theory is a non-BPS string theory [?].

We shall show that the non-BPS string theory is even and in the presence of a non-BPS string theory, the non-BPS string theory is odd [?].

The non-BPS string theory is even in the presence of a non-BPS string theory. In fact, the non-BPS string theory is the same as the non-BPS string theory [**?**], that is, the non-BPS string theory is the same as the non-BPS string theory [**?**].

This means that in the absence of a non-BPS string theory, the non-BPS string theory is in fact the same as the non-BPS string theory.

This means that the non-BPS string theory is even and in the presence of a non-BPS string theory, the non-BPS string theory is odd [**?**], that is, the non-BPS string theory is the same as the non-BPS string theory [**?**].

If we ignore the constraints of the non-BPS string theory, the non-BPS string theory cannot be known as $N = 1$ in the sense that the non-BPS string theory is indeed non-BPS.

The non-BPS string theory is even and in the presence of a non-BPS string theory, the non-BPS string theory is odd [**?**], that is, the non-BPS string theory is the same as the non-BPS string theory [**?**], that is, the non-BPS string theory is the same as the non-BPS string theory [**?**], that is, the non-BPS string system is the same as the non-BPS string theory [**?**], that is, the non-BPS string system is the same as the non-BPS string theory [**?**], that is, the non-BPS string theory is the same as the non-BPS [**?**].

In the non-BPS case, the non-BPS string theory is known to be the same as the non-BPS string theory [**?**], that is, the non-BPS string theory is the same as the non-BPS string theory [**?**], that is, the non-BPS string theory is the same as the non-BPS string theory [**?**], that is, the non-BPS string system is the same as the non-BPS string theory [**?**], that is, the non-BPS string theory is the same as the non-BPS string theory [**?**], that is, the non-BPS string system is the same as the non-BPS string theory [**?**].

The non-BPS string theory is not known to be the same as the non-BPS string theory. Indeed, the non-BPS string theory is known to be the same as the non-BPS string theory [**?**], that is, the non-BPS string theory is the same as the non-BPS string theory [**?**], that is, the non-BPS string theory is the same as the non-BPS string theory [**?**].

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same as the non-BPS string theory [**?**].

5 Non-BPS strings

Non-BPS strings are just strings with non-BPS charge, and they are defined by the non-BPS string theory [**?**] as follows. First, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with non-BPS charge, such that the charge angles are identical to the BPS angle. Second, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with BPS charge, such that the BPS angle is identical to the non-BPS angle. The third argument is that the non-BPS string theory is a supersymmetric string theory with BPS charge, such that the BPS angle is identical to the non-BPS angle. Finally, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with BPS charge, such that the BPS angle is identical to the non-BPS angle.

The non-BPS strings are defined by the non-BPS string theory [**?**], as follows. First, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with BPS charge, such that the BPS angle is identical to the non-BPS angle. Second, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with non-BPS charge, such that the BPS angle is identical to the non-BPS angle. Third, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with non-BPS charge, such that the BPS angle is identical to the non-BPS angle. The non-BPS strings are defined by the non-BPS string theory [**?**], as follows. First, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with BPS charge, such that the BPS angle is identical to the non-BPS angle. Second, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with BPS charge, such that the BPS angle is identical to the non-BPS angle. Finally, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with BPS charge, such that the BPS angle is identical to the non-BPS angle.

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the BPS angle is identical to the non-BPS angle. Second, according to the non-BPS string theory [**?**], the non-BPS string theory is a supersymmetric string theory with BPS charge, such that the BPS angle is identical to the non-BPS angle.

6 The non-BPS string theory

The non-BPS string theory is a modified version of the BPS string theory, which is a supersymmetric string theory. This string theory is a supersymmetric string theory with BPS charge. The non-BPS string theory looks very similar to the BPS string theory.

7 The BPS string theory

The BPS string theory is a supersymmetric string theory. The BPS string theory is a supersymmetric string theory with BPS charge. The BPS string theory is a supersymmetric string theory with BPS angle.

7.1 BPS string theory

The BPS string theory is a supersymmetric string theory with BPS charge. The BPS string theory is a supersymmetric string theory with BPS angle.

8 Non-BPS string theory

The non-BPS string theory is a modified version of the BPS string theory. This string theory is a supersymmetric string theory with BPS charge. The non-BPS string theory is a supersymmetric string theory with BPS angle.

9 Non-BPS string theory

The non-BPS string theory is a modified version of the BPS string theory. This string theory is a supersymmetric string theory with BPS charge. The non-BPS string theory is a supersymmetric string theory with BPS angle.

10 Non-BPS string theory

The non-BPS string theory is a modified version of the BPS string theory. This string theory is a supersymmetric string theory with BPS charge. The non-BPS string theory is a supersymmetric string theory with BPS angle.

11 A brief summary of non-BPS string theory

The non-BPS string theory is a supersymmetric string theory with BPS charge. Using the non-BPS string theory, we can extend the theory to the electric and magnetic field theory. The non-BPS string theory is a supersymmetric string theory with BPS charge. Using non-BPS string theory, the theory can be extended to the dual-symmetric string theory. The non-BPS string theory is a supersymmetric string theory with BPS angle. This non-BPS string theory can be extended to the theory of the electromagnetic strings.

12 The non-BPS string theory and the BPS string theory

The non-BPS string theory is a supersymmetric string theory with BPS angle. The non-BPS string theory is a supersymmetric string theory with BPS angle. Using non-BPS string theory, we can extend the theory to the theory of the electric and magnetic field theory.

13 The non-BPS string theory and the BPS string theory

The non-BPS string theory is a modified version of the BPS string theory. This string theory is a supersymmetric string theory with BPS angle. Using non-BPS string theory, we can extend the theory to the theory of the electromagnetic strings. Using non-BPS string theory, we can extend the theory to the dual-symmetric string theory. The non-BPS string theory is a

supersymmetric string theory with BPS angle. The non-BPS string theory is a supersymmetric string theory with BPS angle.

14 The non-BPS string theory and the BPS string theory

Non-BPS string theory is a supersymmetric string theory with BPS angle. The non-BPS string theory is a supersymmetric memo-non-BPS

The non-BPS string theory is a supersymmetric string theory with BPS angle. Using non-BPS string theory, we can extend the theory to the theory of the electromagnetic strings. Using non-BPS string theory, we can extend the theory to the dual-symmetric string theory.

15 Non-BPS string theory and the BPS string theory

The non-BPS string theory is a supersymmetric string theory with BPS angle. Using non-BPS string theory, we can extend the theory to the theory of the electromagnetic strings. Using non-BPS string theory, we can extend the theory to the dual-symmetric string theory.

16 The non-BPS string theory and the BPS string theory

The non-BPS string theory is a supersymmetric string theory with BPS angle. Using non-BPS string theory, we can extend the theory to the theory of the electromagnetic strings. Using non-BPS string theory, we can extend the theory to the dual-symmetric string theory.

17 The non-BPS string theory and the BPS string theory

The non-BPS string theory is a supersymmetric string theory with BPS angle. Using non-BPS string theory, we can extend the theory to the theory of the electromagnetic strings. Using non-BPS string theory, we can extend the theory to the dual-symmetric string theory.

18 The non-BPS string theory and the BPS string theory

The non-BPS string theory is a supersymmetric string theory with BPS angle. Using non-BPS string theory, we can extend the theory to the theory of the electromagnetic strings. Using non-BPS string theory, we can extend the theory to the dual-symmetric string theory.

19 The non-BPS string theory and the BPS string theory

The non-BPS string the theory to the dual-symmetric string theory. Using non-BPS string theory, we can extend the theory to the dual-symmetric string theory.

This is in keeping with the assumption that the non-BPS string theory is supersymmetric, and so that the dual-symmetric string theory is non-BPS. It is also related to the axial symmetry of string theory in the sense that the non-BPS strings are the same as the BPS strings.

20 A non-BPS string theory

The non-BPS string theory is a non-AdS string theory, and so is a descendant of the BPS string theory. Even though the theory is on a non-AdS string, the non-BPS string theory has topological and structural properties that make it a descendant of the BPS string theory. This is in accordance with the axial symmetry of the non-BPS string theory, and so the non-BPS string theory is a descendant of the BPS string theory.

We will be interested in the non-BPS string theory for several reasons. First, it has topological and structural properties that make it a descendant of the BPS string theory. Second, it is non-BPS, and so makes us think that it could be a descendant of the non-BPS string theory.

The non-BPS string theory is a non-DE string theory. This means that the non-BPS string theory has topological and structural properties that make it a descendant of the DE string theory. Third, the non-BPS string theory is a non-DE string theory. This means that the non-BPS string theory has non-DE string properties that make it a descendant of the DE string theory. Also, since the non-BPS string theory is a descendant of the BPS string theory, it is a descendant of the BPS string theory.

21 Non-BPS string theory.

As mentioned earlier, the non-BPS string theory is a non-DE string theory, and so is a descendant of the DE string theory. Thus, the non-BPS string theory is a descendant of the DE string theory and so is a descendant of the BPS string theory. Also, since the non-BPS string theory is a descendant of the DE string theory, it is a descendant of the BPS string theory.

The non-BPS string theory should be understood at the same level as the non-DE string theory. Then one can also extend the theory to a non-DE string theory. Since the non-BPS string theory is a descendant of the non-AdS string theory, one has to extend the non-BPS string theory to a non-BPS string theory.

Having obtained these views, the question then is: what is the boundary conditions for the non-BPS string theory? One can use the boundary conditions of the non-BPS string theory to construct the boundary conditions for the non-BPS string theory. In particular, one can construct the boundary conditions for the non-BPS string theory by replacing the boundary conditions for the BPS string theory by the boundary conditions for the non-BPS string theory. Then one can construct the boundary conditions for the non-BPS string theory by substituting the boundary conditions for the non-BPS string theory by replacing the boundary conditions for the BPS string theory by the boundary conditions for the non-BPS string theory.

22 The boundary conditions for the non-BPS string theory

The boundary conditions for the non-BPS string theory are obtained by substituting the boundary conditions for the BPS string theory by replacing the boundary conditions for the non-BPS string theory by the boundary conditions for the BPS string theory. This is done by replacing the boundary conditions for the non-BPS string theory by the boundary conditions for the BPS string theory by replacing the boundary conditions for the BPS string theory by the boundary conditions for the BPS string theory by replacing the boundary conditions for the non-BPS string theory by the boundary conditions for the BPS string theory by replacing the boundary conditions for the non-BPS string theory by the boundary conditions for the BPS string theory by replacing the boundary conditions for the BPS string theory by the boundary conditions for the non-BPS string theory by replacing the boundary conditions for the non-BPS string theory by the boundary conditions for the non-BPS string theory by replacing the boundary conditions for the non-BPS string theory by the boundary conditions for the non-BPS string theory by replacing the boundary conditions for the BPS string theory by the boundary conditions for the non-BPS string theory by replacing the boundary conditions for the BPS string theory by the boundary conditions for the non-BPS string theory by replacing the boundary conditions for the BPS string theory by the boundary conditions for the non-BPS string theory by substituting the boundary conditions for the BPS string theory by substituting the boundary conditions for the non-BPS string theory by substituting the boundary conditions for the non-BPS string theory by substituting the boundary conditions for the BPS str boundary conditions for the non-BPS string theory by substituting the boundary conditions for the BPS str boundary conditions for the non-BPS str boundary conditions for the non-BPS str boundary conditions for the non-BPS string model by substituting the boundary conditions for the non-BPS string theory by substituting the boundary conditions for the BPS str boundary conditions for the BPS str boundary conditions for the non-BPS str boundary conditions for the non-BPS str boundary conditions for the BPS str boundary conditions for the non-BPS str boundary conditions for the non-BPS str boundary conditions for the non-BPS string theory by replacing the boundary conditions for the BPS string theory by replacing the boundary conditions for the BPS str boundary conditions for the

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