

Symmetric $\mathcal{N} = 4$ supergravity in the presence of a scalar field

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Abstract

We study $\mathcal{N} = 4$ supergravity in the presence of a scalar field. We first study the case of an arbitrarily large N symmetry along the top of the $SU(2)$ and $SU(2)_U$ gauge groups, where $SU(2)$ is a supersymmetric supergravity. Then we consider a generic $SU(2)_U$ gauge theory with $SU(2)$ supersymmetry and construct a compact, $SU(3)$ model. We then show that the $SU(2)$ gauge theory that we construct is a supergravity theory in the context of the $SU(3)$ superconformal field theory. For a given N -symmetry in the vicinity of the $SU(2)$ gauge group, we show that the supergravity theory that we construct is the supergravity theory in the context of the supergravity duality of the $SU(3)$ gauge theory with $SU(2)$ supersymmetry. We also discuss the role of the Freeman-Kemmer-Hawking entropy of the supergravity theory in the presence of a scalar field.

1 Introduction

The general form of the $SU(3)$ gauge theory [?] has been a source of much interest in the past several years. There, the discussion of the theory has been at the same time an important step toward a better understanding of the possible structure evolution in the gauge theory [?] [?].

The $SU(3)$ theory is a supersymmetric gauge theory with higher order supersymmetry [] in place of a traditional gauge theory, [?]. This supersymmetry is the basis of the I-D coordinate system in the supersymmetric theories [?].

For the superextended version of the theory, the authors of [?] [?, ?] have been influenced by the investigations of Richardson, Moore, and Leaver [?], [?]. On the other hand, a number of alternative approaches have been proposed, including [?, ?, ?] and [?].

The superextended version of the theory [?] was proposed by Gillespie and Herdt in [?] [?] as the basis of a new supersymmetric gauge theory. The authors of [?] [?] have also drawn on the findings of [?, ?] [?], [?] and [?]. The authors of [?] [?] have also studied the superextended theory [?] in detail. On the other hand, the authors of [?] [?] have also studied the superextended theory [?] in detail. A notable fact about the superextended theory [?] is its use under the gauge framework of the $U(1)$ supersymmetry.

According to the definition of the superextended theory, the supersymmetric gauge theory has the same dimensionality as the supersymmetric gauge theory in the presence of a scalar field.

2 Introduction

The supersymmetric gauge theory (S-GFT) [?] is the simplest and most general gauge theory. In the presence of a scalar field ϕ , the supersymmetric gauge theory can be written in a more general form [?, ?]. In this paper, we consider the superextended state of the theory [?] in the vicinity of a scalar field ϕ . The result is a simple description of the General Theory of the Superextended Theory [?].

3 Introduction

From a theoretical standpoint, the superextended theory is an interesting subject because it has a great deal of mysterious properties, such as a non-linearity of the gauge theory, a non-commutative description of the superextended theory, and an interesting non-commutative description of the supersymmetric gauge theory [?]. The superextended theory is also an interesting subject because it has a common set of features with the supersymmetric gauge theory, such as linearity and noncommutativity. The case of the supersymmetric gauge theory is very similar to the case of the supersymmetric gauge theory [?]. This is because the theory is not the same as the supersymmetric gauge theory [?].

In the context of the supersymmetric gauge theory, the superextended theory is of great interest because it is the simplest and most general gauge theory, as well as one of the most general and generalizable theories, namely, the supersymmetric gauge theory [?]. In this paper we consider the superextended theory in the vicinity of a scalar field ϕ . The result is a simple description of the General Theory of the Superextended Theory [?].

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We start from the simplest description of the superextended theory. We can define the superextended theory in the presence of a scalar field ϕ . The result is a simple description of the General Theory of the Superextended Theory [?]