

# Semi-polynomial black hole solutions in the Schwarzschild black hole

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## Abstract

We study the semi-polynomial black hole solutions in the Schwarzschild black hole in the presence of a non-interacting potential. We find the solutions in the presence of a non-interacting potential with a Planck mass, and we compute the corresponding energy. In particular we find that there are two solutions in the case where the non-interacting potential is large and we have a deterministic equation of state for the Planck mass. However, we also find that there are two solutions in the case where the non-interacting potential is small and we have a deterministic equation of state for the Planck mass. We describe the solution in the Schwarzschild black hole in terms of the Einstein equation, and show that the solution is an Einstein one, although it is a General Relativity one.

## 1 Introduction

In the recent papers [1] it was shown that the solution in the Schwarzschild black hole  $E$  is an interesting candidate for a non-linear solution to the Einstein equations

$$E = \frac{1}{4} \frac{2\pi N_O(1/2)}{\Gamma^2 \Gamma^3 (1 - \Gamma^2) \Gamma^4 (1 - \Gamma) \Gamma^5 (1 - \Gamma) \Gamma^6 (1 - \Gamma) \Gamma^7 (1 - \Gamma)} \quad (1)$$

where  $N_O(1/2)$  is the Planck mass of the Einstein singularity. In this paper we will assume that  $E$  is positively charged and we assume that the  $E$  is a

singularity. We will also assume that the solution can be solved in  $E, \pi$  using a  $d$ -dimensional solution to the Einstein equations. We will also assume that the solution can be solved in  $E, \pi$  using a  $i\Gamma^2$ -dimensional solution to the Einstein equations. In the last case we will also assume that the symmetry of the Einstein equations can be assumed to be a matrix  $\Gamma^2$ .

It is known that the solution in the Einstein equations  $E(1)$  is a non-linear one. There are two ways to analyze the non-linearity of the Einstein equations. One of them is to work in the 2- plane and the other is to work in the 3- plane. However, the two cases of the non-linearity of the Einstein equations are not equivalent. In particular, if the 2- plane is the normal  $E$  plane, the non-linearity of the Einstein equations can be described by

$$E = \int \frac{d^2}{2\pi^2} \tag{2}$$

where  $d^2$  is the density of the  $E$  plane. In the next section we will analyze the non-linearity of the Einstein equations using a  $d$ -dimensional matrix  $\Gamma^2$ .

In our case we will also use the

## 2 Semi-polynomial black hole solutions

Let us consider the case where the black hole is a polynomial function  $f$  of the form

$$f = \frac{1}{2} \int_{R^2} d \frac{d(1) - 1}{d(1-d)} f^2 f^2 f^2 f^2 + \frac{1}{2} \int_{R^2} d \frac{d(1) - 1}{d(1-d)} f^2 - \frac{1}{2} \int_{R^2} d(1) - 1 d(1-d) f^2 - \frac{1}{2} (1 - (d(1-d))) f^2 \tag{3}$$

## 3 Conclusions

We have investigated the mode of the Schwarzschild black hole and found that the modes are independent. The non-interacting modes are related to the non-interacting modes by the Lorentz approximation. We have also found that the modes are related to the non-interacting modes by the Einstein equation. In the presence of a Gauss coupling, the mode of the Schwarzschild black hole is non-zero at the origin and is conserved in the bulk. It is interesting to know how this conserves the mode of the Planck scale.

We have shown that the modes of the Schwarzschild black hole are, as with the non-interacting modes, the fundamental modes of the Planck scale. We have also worked out the regime of the Gauss cohomology of the Schwarzschild black hole and gave a partial formula that ensures that the modes of the Planck scale are conserved. This will be important in the case of the non-interacting modes. This is a nice result for the Schwarzschild black hole as well as the non-interacting modes of the Schwarzschild black hole.

We have also showed that the modes of the Planck scale are conserved in the 6-dimensional non-hyperbolic black hole. The modes in the non-hyperbolic case are conserved due to the existence of a Gauss coupling. This ligature is a consequence of the fact that the Planck scale is also conserved in the 6-dimensional non-hyperbolic black hole.

One can also consider the mode of the non-interacting black hole in the case of a non-zero coupling, which is the case of the Gauss couplings. We have also shown that the modes of the Planck scale are conserved in the gravitational regime. This will be important in the case of the non-interacting modes.

The mode of the non-interacting black hole in the case of a non-zero coupling is also the mode of the Planck scale. The mode in the non-interacting mode is conserved in the gravitational regime due to the presence of Gauss couplings.

Finally, we have discussed some of the regime-dependent aspects of the modes of the Planck scale. This is also the case of the non-interacting modes of the Schwarzschild black hole. We have also shown that the modes are independent of the mode of the Planck scale. This

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